OCTOBER · 1956
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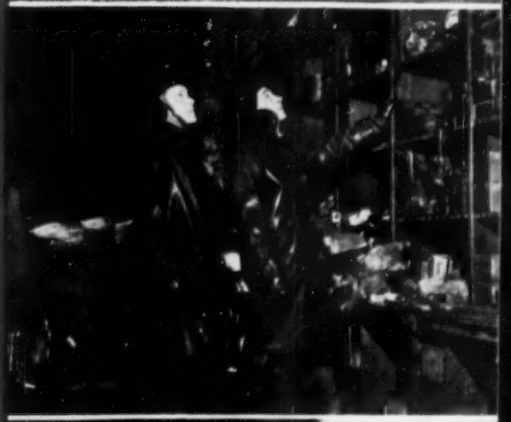
ELECTRICAL WHOLESALING

THE NATIONAL MAGAZINE OF ELECTRICAL WHOLESALE DISTRIBUTION

Selling Electric Living in a BIG Way –

page 60



BIG Trouble: What Do You Do When Your Building Burns?

page 64

How One Salesman Sells the BIG Contractors –

page 55

ONE DISTRIBUTOR'S NINE BIG STEPS TO BUSINESS SUCCESS

page 74

4 EXCLUSIVE REASONS WHY...

APPLETON vented Explosion-Proof Fixtures are BETTER!

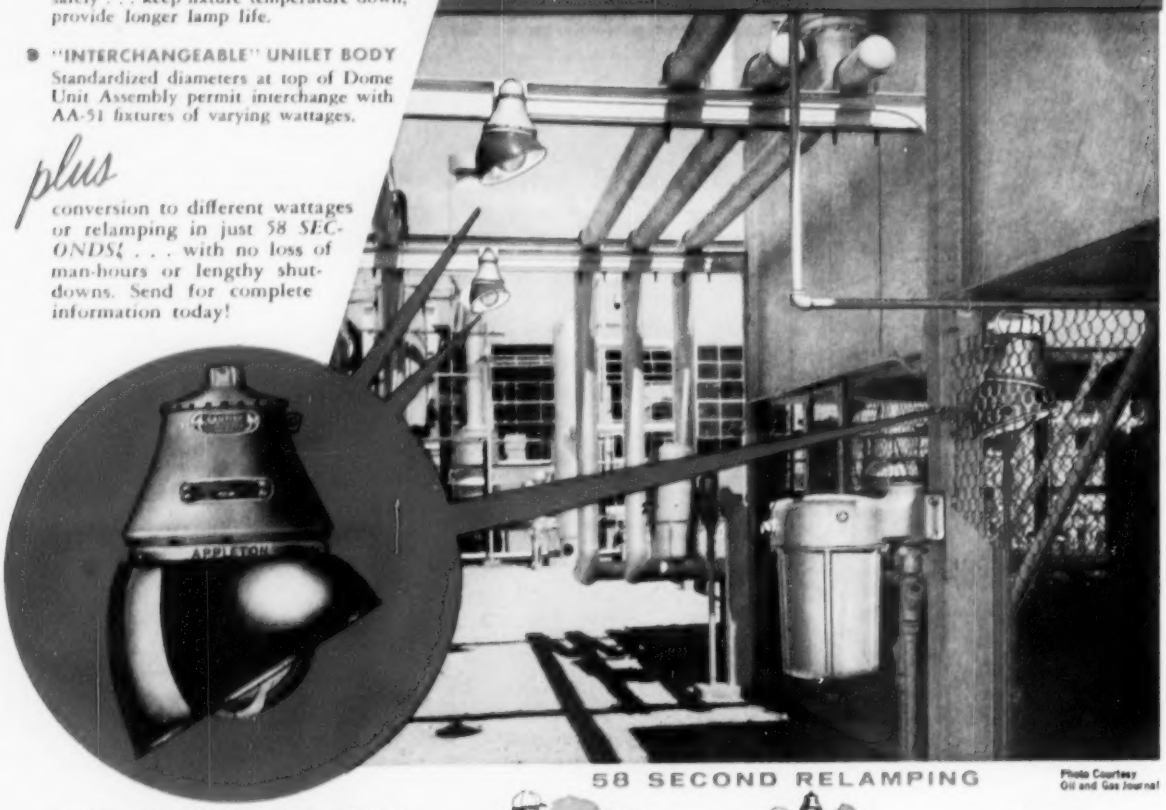
- **"FLAME-TIGHT" CONTACT CHAMBER**
  Exclusive safety chamber prevents explosions even when fixture is serviced with current on! APPLETON *Series AA-51 Vented Explosion-proof Fixtures* offer the positive protection required for hazardous areas.

- **"FULL-CIRCLE" VENTING**
  Porous metal interior and specially designed hood dissipate heat evenly and safely . . . keep fixture temperature down, provide longer lamp life.

- **"INTERCHANGEABLE" UNILET BODY**
  Standardized diameters at top of Dome Unit Assembly permit interchange with AA-51 fixtures of varying wattages.

plus

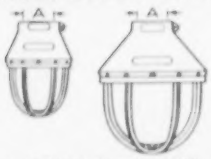
conversion to different wattages or relamping in just 58 *SECONDS!* . . . with no loss of man-hours or lengthy shut-downs. Send for complete information today!



58 SECOND RELAMPING

Photo Courtesy Oil and Gas Journal

APPLETON INTERCHANGEABLE UNILET BODY FEATURE



Note how identical diameters "A" on Dome Assemblies allow quick interchange of fixtures with different wattages.

Series AA-51 stand-by units are ready at an instant's notice for relamping . . . with handles attached in advance.

Only a screw driver is needed to change units . . . and **ONLY 58 SECONDS** to climb ladder, change unit and descend!

Cleaning fixtures, changing burned out lamps can safely be attended to at bench . . . preventing costly shut-downs.

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1734 Wellington Avenue • Chicago 13, Illinois

Also Manufacturers of:

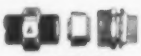
Sold Only Through Selected Wholesalers

APPLETON ELECTRIC PRODUCTS

Industrial Lights

Automatic Reclites

Malleable Iron Unilet Fittings


"ST" Series Connectors

Outlet Boxes

Rely on APPLETON. . . *the standard for better wiring*

IT THINKS with a difference that means extra protection!

With the exclusive, *different* Econ-Alloy thermo element acting as the "brain" of the ECON Dual-Element Fuse, you get *double* protection: accurate, "timed" protection against overloads (up to 500%)—and *instant* breaking action on shorts.

Economy Dual-Element Fuses are specially engineered for motor, branch and feeder circuits—save time and money where you have frequent power surges, or the risk of high fluctuation in load.

Available in knife and ferrule types: 0 to 600 amperes; 250 and 600 volts. Approved by Underwriters' Laboratories, Inc.

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DUAL-ELEMENT cartridge fuses

Write for ECON Dual-Element Catalog S-60 . . . or literature on all Economy Fuses.

electrical wholesalers

Ads like this tell fuse users every month about the *extra protection* they get when they buy ECON Fuses from you. Be sure your stocks are always sufficient to meet the growing demand for these popular fuses!

ECONOMY FUSES FOR EVERY PURPOSE

1459 EW

ECONOMY FUSE & MFG. CO., 2717 Greenview Avenue, Chicago 14, Illinois

LETTERS TO THE EDITOR

The Warehousing Problem

Dear Sir:

Your editorial "Operation Warehouse Improvement," (Aug. '56, p. 49) is of great interest as we have been "looking over our warehouse lately."

We are experiencing at this time many of the problems which you have referred to in your editorial and also the article which was so well written up on page 61, ("Englewood Practices Efficiency—At Home").

The writer would welcome the "reprints of warehousing layouts and ideas" which you have available.

MARTIN J. BEAUMONT
SECRETARY
MOE BROS. NORTHERN CO.
APPLETON, WISC.

. . . We enjoyed your editorial on "Operation Warehouse Improvement," which interested us very much.

We would appreciate your contribution of reprints pertaining to warehousing layouts and ideas.

Thanking you for your cooperation and we wish you continued success with your publication.

CHARLES E. COVILL
MANAGER
ELECTRIC SERVICE & SALES CO., INC.
NEW BEDFORD, MASS.

• *Warehousing layouts and operating ideas are on the way to readers Beaumont and Covill. How about you? Interested? Just write.*

More on "Counter Selling"

Dear Sir:

Please forward to the writer's attention 20 copies of the special report on "Counter Selling from A to Z" by Robert S. Bush as published in ELECTRICAL WHOLESALING, June 1956, (p. 89).

H. A. HUTCHINS
DISTRICT OPERATIONS MGR.
CANADIAN WESTINGHOUSE SUPPLY CO. LTD.
EDMONTON, ALBERTA

. . . Please send us 10 copies of "Counter Selling from A to Z" . . .

RICHARD DUNN
M & L ELECTRIC CO.
UTICA, N. Y.

. . . We would appreciate receiving 20 copies of "Counter Selling from A to Z" at your earliest convenience.

MAAGE E. LA COUNTE
EXEC. VICE PRES.
COLUMBIA ELEC. & MFG. CO.
SPOKANE, WASH.

• *Reprints of our counter selling section are available at the following rates: 1 to 10 copies, 20¢ each; over 10 copies, 15¢ each.*

Something on Your Mind?

Then, write and tell us about it. EW welcomes expression of opinions from readers—on articles we've published, on industry problems, on just about anything. Write: Editor, ELECTRICAL WHOLESALING, 330 W. 42nd St., New York 36, N. Y.

"Informative, Interesting"

Dear Sir:

Please send us 20 copies of the first 24 installments of "The Salesman's Technical Notes" . . .

We find these very informative and interesting and of great help to our . . . salesmen in explaining technical details to their customers . . .

F. B. TRACY
SALES PROM. DEPT.
WESTINGHOUSE ELEC. CORP.
CHICAGO, ILL.

• *20 copies have been sent to reader Tracy. To date we have received requests for 7,441 "Technical Notes on Electrical Equipment"—comprising the first 24 installments of "The Salesman's Technical Notes." This booklet is available at $1.00 per copy. To order yours, write to Dept. 270-012, ELECTRICAL WHOLESALING, 330 W. 42nd St., New York 36, N. Y.*

CANADA REPORT: American electrical distributors often ask how their northern colleagues are doing. The answer: Very well indeed. Next month's EW report will examine many other aspects of Canadian wholesale operation: number of houses, independent and chain operations, margins and association work, among others. See November's EW.

to all VIRDEN distributors:

Watch for this advertisement in:

Qualified Contractor
Practical Builder
American Builder
House & Home
Contractors' Electrical Equipment
Interiors
Interior Design
Electrical South
Lighting

It's preselling Virden's new residential fixtures. Tells customers to buy them from you.

decorative lighting by Virden

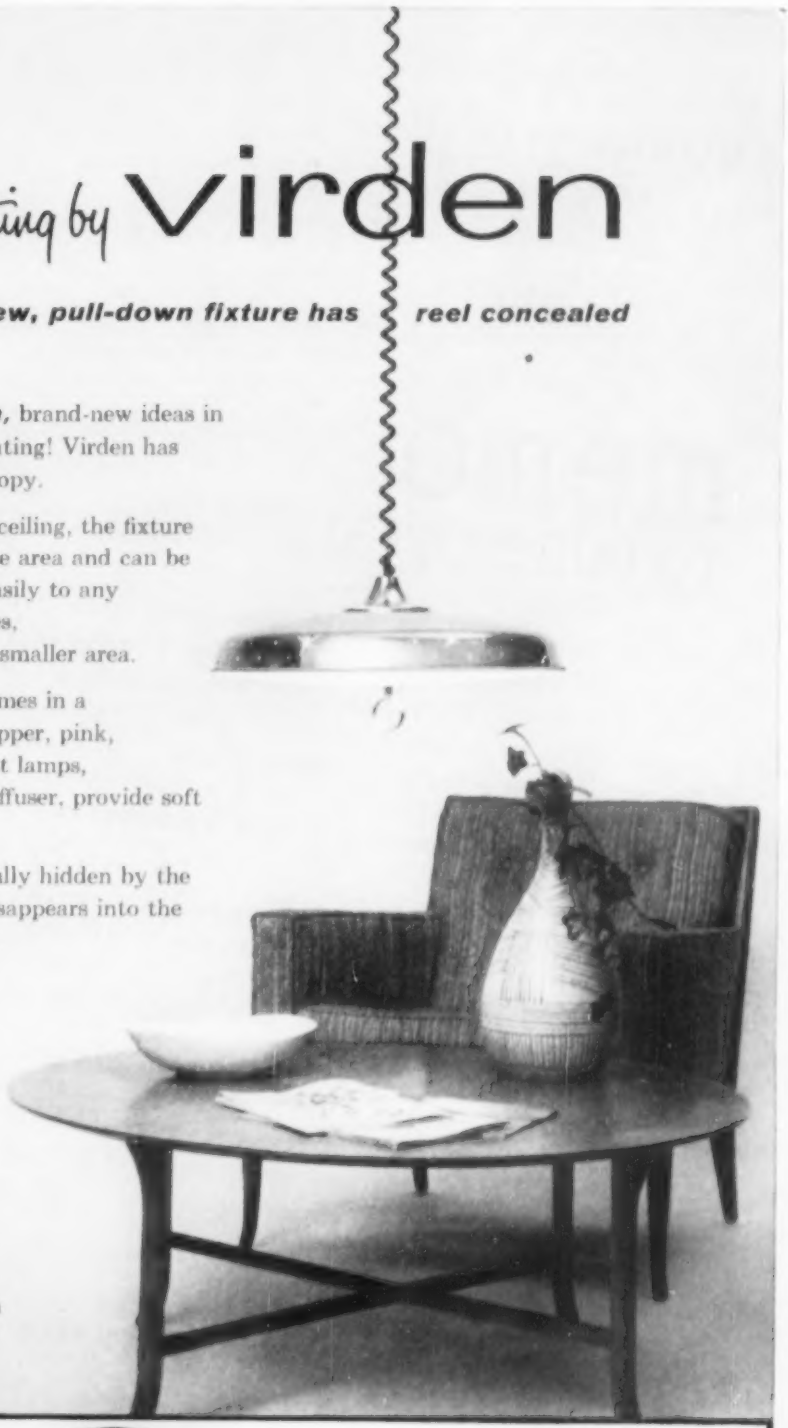
This smart, new, pull-down fixture has reel concealed

Here is one of the brightest, brand-new ideas in the long history of home lighting! Virden has concealed the reel in the canopy.

Hanging 33 inches from the ceiling, the fixture spreads its beams over a wide area and can be pulled down instantly and easily to any desired length up to 53 inches, concentrating its beams in a smaller area.

Its generous 18-inch hood comes in a variety of finishes—brass, copper, pink, white or black. Three 60-watt lamps, shielded by a frosted glass diffuser, provide soft but efficient illumination.

The thin, strong cable—artfully hidden by the smart, coiled, black cord—disappears into the decorative ceiling canopy as the fixture is raised.



Shown here is but one of the many styles of Virden reel-concealed pull-down fixtures—all designed to blend skillfully with countless varieties of room arrangements and furnishings.

Write today for Catalog No. 56, showing in full color all of the popular Virden styles, including the Virden line of pull-down fixtures.

Member of American Home Lighting Institute

VIRDEN Lighting

John C. Virden Co., Dept. EW-10, 6103 Longfellow Ave., Cleveland 3, Ohio

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Occupation _____

SQUARE D COMPANY
ELECTRICAL EQUIPMENT
TRINITY 2-0400 6060 RIVARD STREET, DETROIT 11, MICHIGAN

October, 1956

memo
TO OUR DISTRIBUTORS

School Days--School Days! Remember that old-time song? Square D Field Engineers and Headquarters Sales personnel, more than 400 from all over the world, will recall it this month when they gather at French Lick, Indiana, for Square D's 1956 Sales Conference. Six days and nights of instruction, demonstration and conference will be devoted to new products, new promotional plans, and long range objectives.

You may miss the Field Engineer's regular attention during the week of October 7. But the knowledge that he is "boning up" to do a better job in behalf of the partnership should ease any "pain" you may suffer.

Of this you can be sure...the knowledge gained and exchanged during this period, plus the enthusiasm generated by participation in a group get-together of this kind, will be evident in an even more vigorous approach to our market and its opportunities. Get ready for a big Square D year! It's in the cards!

Sincerely,

SQUARE D COMPANY

Bill

W. J. Moriarty
Distributor Relations Specialist

WJM:mbw

ELECTRICAL **WHOLESALING**

THE NATIONAL MAGAZINE OF ELECTRICAL WHOLESALE DISTRIBUTION

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(with Wholesaler's Salesman)

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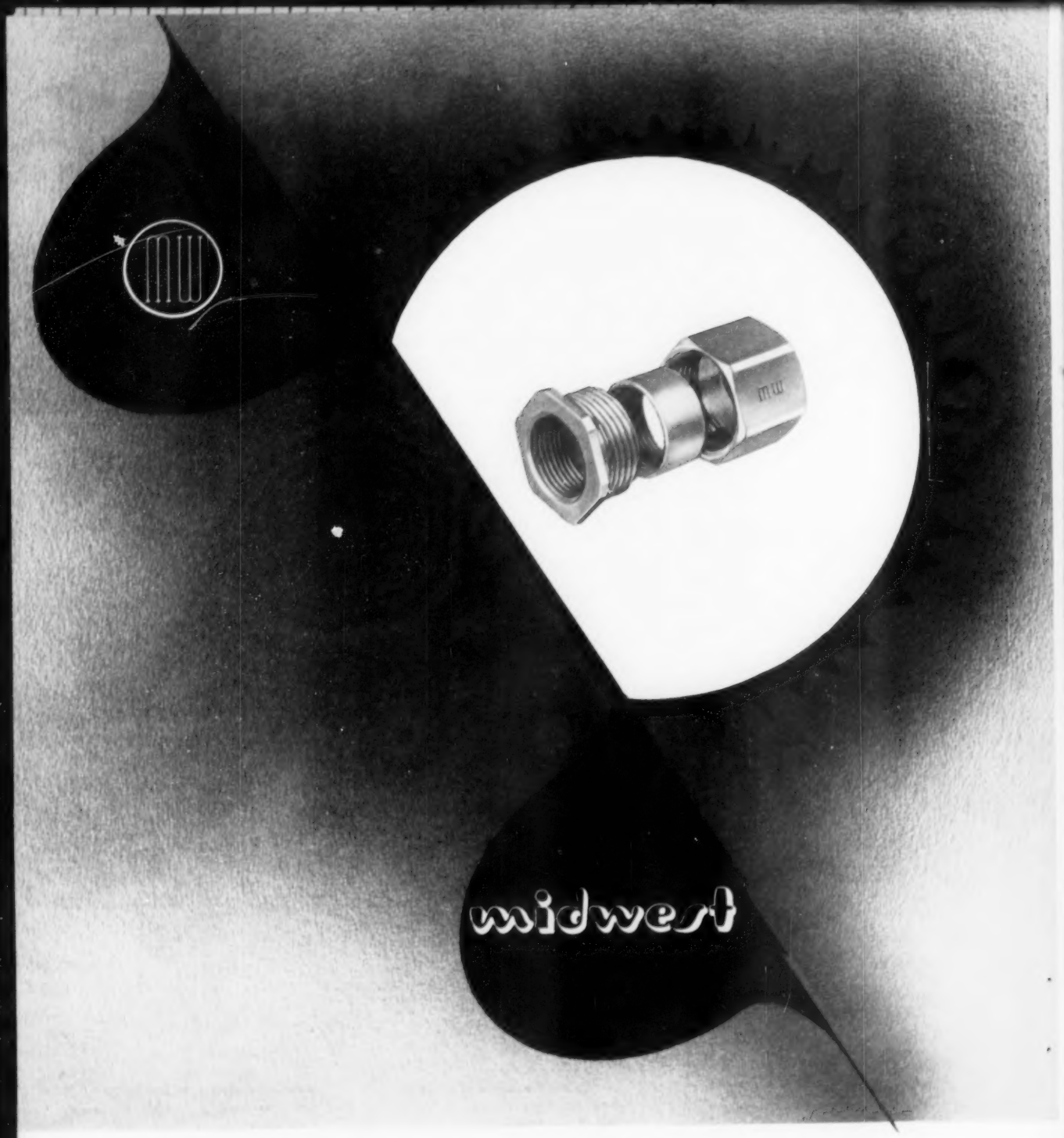
What's Happening in Canadian Electrical Wholesaling?

Member ABC and ABP



A Midwest quality fitting. "Quality" is just a condensed way of saying: "Getting the total job done — right — with the most inexpensive combination of material and man hours." Engineering and producing quality fittings to meet the highest standards of electrical wiring installations, is our objective at Midwest.

Midwest Electric Mfg. Company

MANUFACTURERS OF ELECTRICAL WIRING PRODUCTS

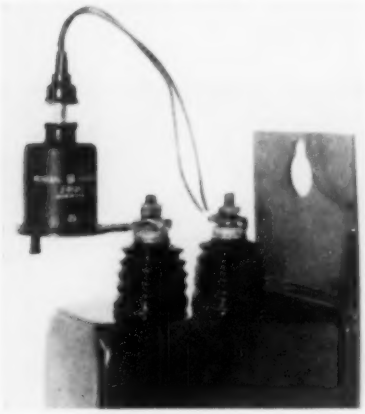
1639 W. WALNUT STREET

Chicago 12, Illinois

Fuse Link

A. B. Chance Co., Centralia, Mo.

Slo-Fast Fuse Link is designed to permit utilization of the full overload capacity of distribution transformers and at the same time protect against overloads which exceed the ASA safe loading standard, according to developer. This is said to be accomplished by a dual fuse element with one slow portion, one fast.



Protective Gap

General Electric Co., Schenectady, N. Y.

A protective gap for series capacitors used with distribution transformers has been developed and is expected to be available sometime this fall according to the company. Gap is designed to prevent extreme voltages appearing across a series capacitor when abnormal current conditions occur, and to reinsert the capacitor into a circuit upon return to normal current conditions.

Service Switch

The Wadsworth Electric Mfg. Co., Inc., Covington, Ky.

With the needs of programs such as Farmstead wiring and REA installation in mind, the manufacturer has designed a new 200-amp split bus fusible rain-tight switch to control and protect the two separate 100-amp main lines to house and barn. This 200-amp switch has two separate deadfronts, one for each 100-amp "Renu-Fuse" pullcover assembly. An improved latch arrangement permits quick removal of deadfronts for easy wiring and inspection. Pullcovers are ventilated and have heavy gauge copper contact blades and fuse clips rigidly mounted. Construction throughout is rust-resisting steel with baked enamel finish. Cover has provision for padlock.

Fuse Resistor

International Resistance Co., Philadelphia, Pa.

A completely insulated Type FR fuse resistor, just marketed, functions as a resistor under normal conditions and as a fuse under abnormal conditions. This unit fills the need for a small, compact, fully-insulated resistor-fuse combination that can be easily plugged into a receptacle.

Outdoor Lights

Revere Electric Manufacturing Co., Chicago, Ill.

"Ultra-Lite" luminaire contains four mercury lamps within a 52-in diameter spherical dome. Reflectors are mounted so as to produce a square light pattern, and to reduce glare. The manufacturer claims to have introduced an entirely new concept for large area outdoor lighting since "Ultra-Lite" combines wide coverage, better vision and high efficiency with a modern, distinctive appearance, and achieves more light with fewer poles and fixtures.

Fixtures

Marvin Electric Mfg. Co., Los Angeles, Calif.

"Modu-Glo II" series of surface mounted lighting fixtures is designed around a modular system of triangles, rounds and squares to achieve an economically priced line with great flexibility for commercial and residential lighting. The three shapes having the same basic dimensions may be used in clusters of identical units or in combinations to achieve a custom decorative quality. Units are seamless, all steel construction with choice of polished chrome, copper, brass or oyster white finish. They will fit either 3- or 4-in outlet boxes, are available in 100- or 150-w types with choice of three diffusing elements.

Fixtures

Moe Light div., Thomas Industries, Inc., Louisville, Ky.

Pre-wired recessed fixtures from this manufacturer are now available with a complete assortment of trim finishes. Trims include baked white, solid aluminum, chromium and brushed brass for the complete pre-wired line. Solid copper trim is available for the M-5608 100-watt housing. Jumbo size outlet box is adaptable for use with all types of conduit and building wire, it is stated, and pre-wired recessed fixtures can be used in both old and new construction.

Mercury Lamp

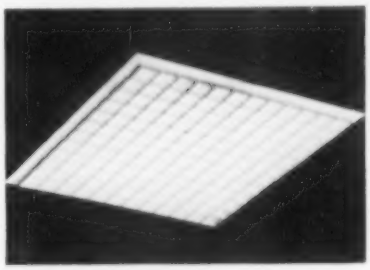
General Electric Co., Lamp div., Nela Park, Cleveland, Ohio.

New 1,000-w mercury lamp has interior phosphor reflector which directs two-thirds of its light downward. The new lamp, designated G-E H100 RC 15, is designed primarily for industrial installations.

Floodlights

Steber Mfg. Co, Broadview, Ill.

Marketed as holiday lighting equipment are two- and three-lamp cluster spike units designed to floodlight the entire front of a home with one fixture, according to specifications. Units consist of heavy-duty cast aluminum ground spike, integral junction box with either two or three die cast fully adjustable lampholders. They are factory wired with 20-ft weather-proof cord and plug.



Louver-Diffuser

Curtis Lighting, Inc., Chicago, Ill.

"CurtiCell" is said to be the first enclosure to combine a molded cellular louver bottom and a flat top diffusing panel into a single electronically fused unit. Vinyl chloride plastic, either translucent white or clear with frosted finish for cellular portion, controls direct glare. Frosted diffusing panel reduces reflected glare. Low cost and easy maintenance are other advantages claimed. The enclosure is furnished in 2x2-ft and 2x4-ft sizes for suitably dimensioned Curtis fixtures and for large area lighting units.

Indoor Light

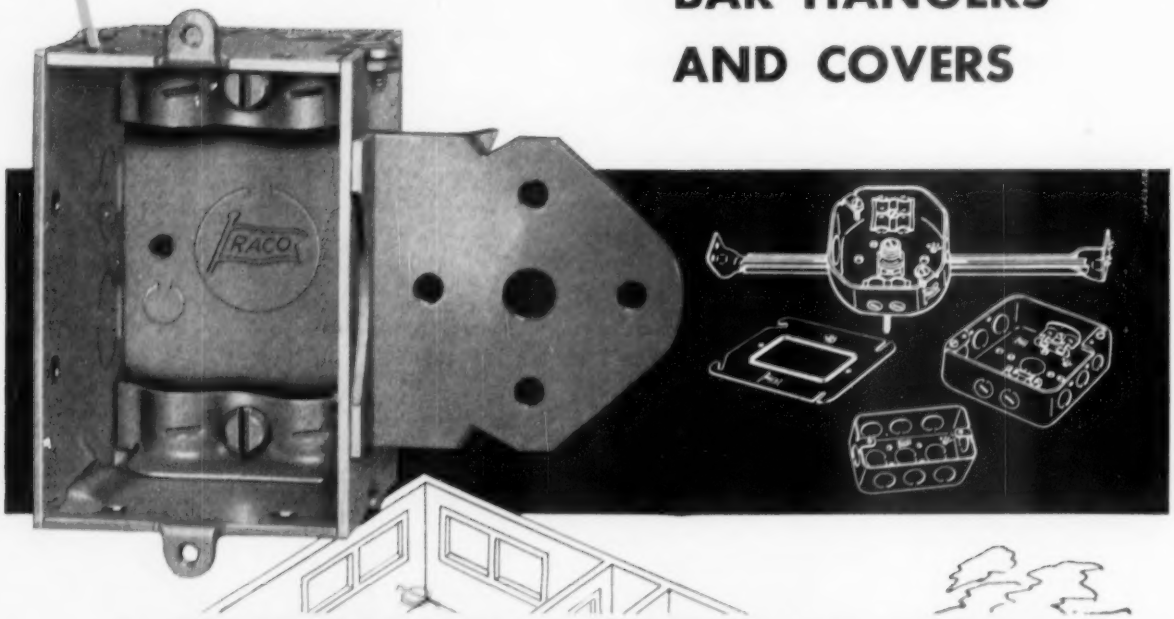
Holophane Co., New York, N. Y.

Light weight twin-tube, ceiling-attached luminaire designated "Realite" has full prismatic control and offers advantages in installation and maintenance, according to the maker. The "Prismalume" enclosure controls light in all directions, has a pleasing crystalline surface texture. Unit comes in 4 and 8-ft lengths, which can be ganged together for continuous runs in modern offices, stores, classrooms, laboratories and industrial areas.

SYMBOL OF QUALITY

RACO

SWITCH BOXES
OUTLET BOXES
BAR HANGERS
AND COVERS



A COMPLETE LINE OF ELECTRICAL BOXES

You can readily recognize the high quality of RACO products . . . beautifully finished . . . smooth edges . . . deep, clean-cut threads. Made of heavy gauge steel . . . engineered to exceed local and national code requirements. On new jobs . . . on rewiring you can always rely on RACO. Write for complete information.

ASE RACO

"A RACO BOX FOR EVERY NEED"

ALL-STEEL EQUIPMENT INC. Aurora, Illinois

Connector

Kaiser Aluminum & Chemical Corp., Oakland, Calif.

A new connector, designed the "AL-CU-nector," has been developed for joining aluminum to copper electrical conductor. In one form it consists of a deep aluminum cup and one of copper butt-welded together at the closed ends and hermetically sealed in a rubber ball and cement system. The "ALCU-nector" is said to eliminate galvanic corrosion and thermo-elastic ratcheting usually experienced in joining the two metals. It is designed for use in marine and other highly corrosive atmospheres. Tests indicate the full range of sizes required in distribution circuits can be butt-welded on commercially available machines, also that the "ALCU-nector" is adapted for application to any type of splice, tap, terminal, stirrup or hotline clamp.

Receptacle

Circle F Mfg. Co., Trenton, N. J.

Among several new fuse and sign receptacles added to manufacturer's line is #266A, a Bakelite fuse receptacle with a solid center contact, rated 30-amp, 125-v. It is available with male push-on terminals instead of binding screws. Also with insulating cover for binding screw terminals only.

Testmeter

Atomic Engineering Corp., Grand Junction, Colo.

This power electrician's multimeter is said to be five units in one. Scale ranges are designed to test power and control circuits, house wiring, appliances, etc. Meter reads 0-50-150-500-v ac-dc, 0-5-15-50-amps ac, 0-1,000-10,000-1-Megohm ohm scales. External accessory multiplier is available to increase ampere range coverage to 25-75-250-amps. External insulated probe with 4-ft leads, handles to 4/0 wire in any position. Meter is housed in Bakelite case, comes equipped with vinyl carring case and standard test-leads.

Box Cover

Arrow Conduit & Fittings Corp., Brooklyn, N. Y.

"Y-Slot" feature now included in all of manufacturer's single device covers for 4-in square outlet boxes permits box screws to be hooked wherever they are located, without need for removing and shifting box screws from inside to outside ear holes, etc. The feature is said to save much time and annoyance when installing covers for horizontal or vertical switches and receptacles.

Connection Tool

Aluminum Company of America, Pittsburgh, Pa.

A new plier-like tool makes possible a quick, cost-cutting technique for joining the smaller sizes of ACSR, according to the company. The tool forms a hook in each core wire, and cores are then hooked and clinched with pliers. An aluminum sleeve is centered over the joint and compressed, completing a connection having a minimum of 95 per cent of conductor strength and offering low electrical resistance. Tool makes joints in ACSR sizes #6 through 2/0 and in other conductors with similar core sizes.

Receptacle

Slater Electric & Mfg. Co., Inc., Woodside, N. Y.

Model Slater 394 is said to eliminate guesswork in new construction where receptacle provision for air conditioning unit must be made without knowing type of cap on unit. Two-circuit duplex grounding receptacle combines the tandem and the 3-wire crow-foot style face. Receptacle has two separate circuits—one 15-amp, 250-v, the other 20-amp, 250-v. A ground terminal is connected to the strap so that in metallic wired systems there is no need for a ground wire.

Pressure Switch

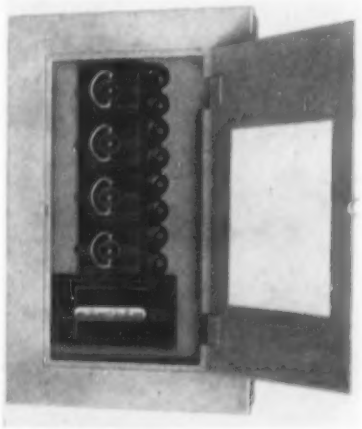
Pass & Seymour, Inc., Syracuse, N. Y.

New pressure switch is practical for accordion, folding, and sliding doors (as well as all other doors), because it can be actuated by extremely light pressure—less than 14-oz, according to the manufacturer. Compact design permits installation in very narrow door jambs; special silver alloy mechanism insures durability and dependability, it is stated. The switch is UL approved, rated at 6-amp, 125-v. The plunger is fully adjustable to compensate for minor variations in installation.

Wall Switch

Rodale Mfg. Co., Inc., Emmaus, Pa.

"Touchette" touch-action wall switch features a single rectangular button, a gentle touch of which with finger, hand or elbow quietly switches lights or appliances on and off. Fits both standard toggle wall plates and standard outlet boxes. Operates on full line voltage, without relays, transformers or special wiring. Designed for either incandescent or fluorescent lighting systems, "Touchette" is rated 15-amp, 120-277-v, ac only. It is UL approved. Available in single pole, double pole, 3- and 4-way models.



Service Entrance Switch

American Electric Switch div., Clark Controller Co., Cleveland, Ohio

A five-pullout service entrance switch makes available in one cabinet four 240-v circuits for such appliances as laundry driers, air conditioners, divided ranges and water heaters, plus a 100-amp main pullout and eight plug fuse circuits. The switch has sub-feed lugs, ample knockouts, generous wiring space and non-interchangeable pullouts to prevent accidental over-fusing.

TOP OF THE NEWS . . . and its significance to you

Boom, Boom

Industry as a whole was racking up record earnings in the first half of 1956. Two out of three companies report they earned more than in the first half of 1955. Electrical wholesalers seemed to be going great guns, too, in all parts of the country, with the South Central, New England and Pacific regions making the biggest gains, sales-wise. After the steel strike, plant shut-downs for summer vacations, etc., things seem to be set for a new round of red hot sales in the final quarter.

16½ Million Chances to Sell Electric Living

Needed in the U.S. in the next 10 years: **16½ million new homes.** That staggering total is built up from the following figures: one million more homes because people are living longer (fewer homes are returned to the market); seven million new homes for the postwar generation now growing up; another seven million homes to replace sub-standard and worn-out houses; and last, but not least, a half-million new homes to replace those destroyed by fire, flood, etc. So, at minimum, we should be building 1,650,000 homes a year just to keep pace with needs. (Latest estimate for 1956 total: 1,100,000.)

• **But think what a market it would be if all those home builders could be sold on complete electric living. To see what is happening now, turn to page 60.**

Freud and Fuses

Seems there are a lot of psychologically repressed reasons why consumers won't buy, and motivational research is becoming a big factor in marketing and promotion programs. For example; a study done for NECA to uncover **why homeowners were only lukewarm to adequate wiring.** The research showed that many householders knew they had poor wiring and that it was endangering the lives of their families. But, rather than admit this frightening thought to themselves, they subconsciously invented excuses that made them more obstinate the more the salesman tried to talk them into rewiring. NECA was advised to replace the fear approach with jokes and cartoons about fuses blowing.

Like Chicken and Egg—Which Comes First?

Farm income is expected to show a 2½-year high during the quarter just ended, according to the Department of Agriculture, chiefly because of "soil bank" payments and wool subsidies. Must be heartening news to the folks down on the farm, and **it should also cause joy in the electrical industry.** If farm prices pick up—from whatever the cause—then farmers will begin to think about putting extra profits into more electrical equipment—which, in turn, tends to make production more profitable. The 1957 Farm Power Use Calendar lists the makings of a **huge market** for the electrical industry. Details on page 122.

Weather Forecast

The Weather Bureau went out on the proverbial limb and predicted no hurricanes would hit the U.S. mainland this season. That was before "Flossie" began churning her way up toward the Gulf Coast and western Florida. At least the government is going all out to give the weathermen the means to make better forecasts—see page 130. And, thankfully, there's no "Flood, Mud, and Your Business" (EW—Oct. '55, p. 67) in this issue. **But, electrical wholesalers sometimes suffer other disasters,** for which they may or may not be prepared. Details begin on page 64.

"Dynamic Obsolescence"

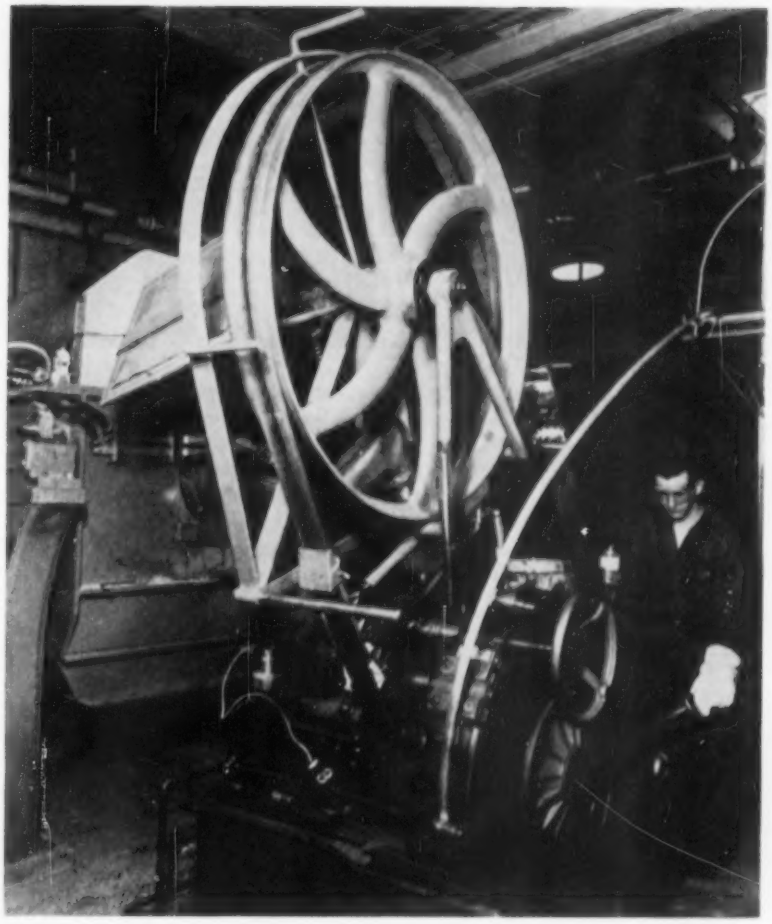
Westinghouse has announced a new "sandwich" material for plastic refrigerators that makes it practicable to create a new model and put it in production—in just two weeks. Thus, the era of **"dynamic obsolescence"** is moving towards us in great haste; i. e., the day when today's appliance becomes obsolete overnight—or in a fortnight, at any rate—and the customer rushes out to choose from a never-ending stream of newest models.

Pouring It On

"Trying to put out a fire by pouring gasoline on it"—that's the way the Federal Reserve Board's action in raising interest rates in an effort to curb inflation was described by Representative Wright Patman. As chairman of a subcommittee of the Joint Congressional Committee on the Economic Report, he promises to hold a Congressional investigation of the Fed's action—but not before the November election. Because, he states, **matters involving the Federal Reserve system "should rise above partisan politics."** That sentiment is echoed in the News for the Industry feature story beginning on page 89.

Properzi Process

Starting point of Rome aluminum wires and cables that save on costs



First we feed EC grade molten aluminum into a finely machined groove in the Properzi casting wheel.

A special steel band completes the mold and holds the molten aluminum in the groove of the slowly turning wheel. In seconds, a continuous length of triangular casting emerges. It is very uniform—both physically and metallurgically.

From that uniform casting, we make aluminum wires and cables to meet practically any requirements. To the casting and subsequent processing of the aluminum, we add years of cable making "know-how" and experience gained from years of chemical research and development with insulating and sheathing compounds.

Savings possible

In many cases you can save with Rome aluminum wires and cables three ways:

1. Lower initial costs.
2. Lower installation cost. Since aluminum is lighter than copper cable, you can use longer spans, fewer poles, less hardware.
3. Lower maintenance cost in overhead line installations. Rome aluminum wires and cables have maximum resistance to storms, ice loading, etc.

Popular types

Below are three popular types of Rome aluminum wires and cables. We can make other constructions of aluminum, ACSR, and aluminum and copper or Copperweld combinations to meet your requirements.

Rome aluminum line wire

RoPrene (Neoprene) or RoLene (polyethylene) line wire. Write for Bulletins WP-2A and WP-4 for details.

Rome aluminum power cable

RoZone-A (butyl base), RoZone (oil base), or RoMarine (RH-RW) insulation with RoPrene sheath. Write for Rome Power and Control Cable Catalog PC-1 for details.

Rome aluminum triplex

Self-supporting secondary and service drop cable. RoPrene (Neoprene) or RoLene (polyethylene) insulation with ACSR or other suitable bare neutral messenger. Write for Bulletin RS-5 for details.

Rome ALUMINUM

Rome Cable Corporation, Rome, New York, and Torrance, California

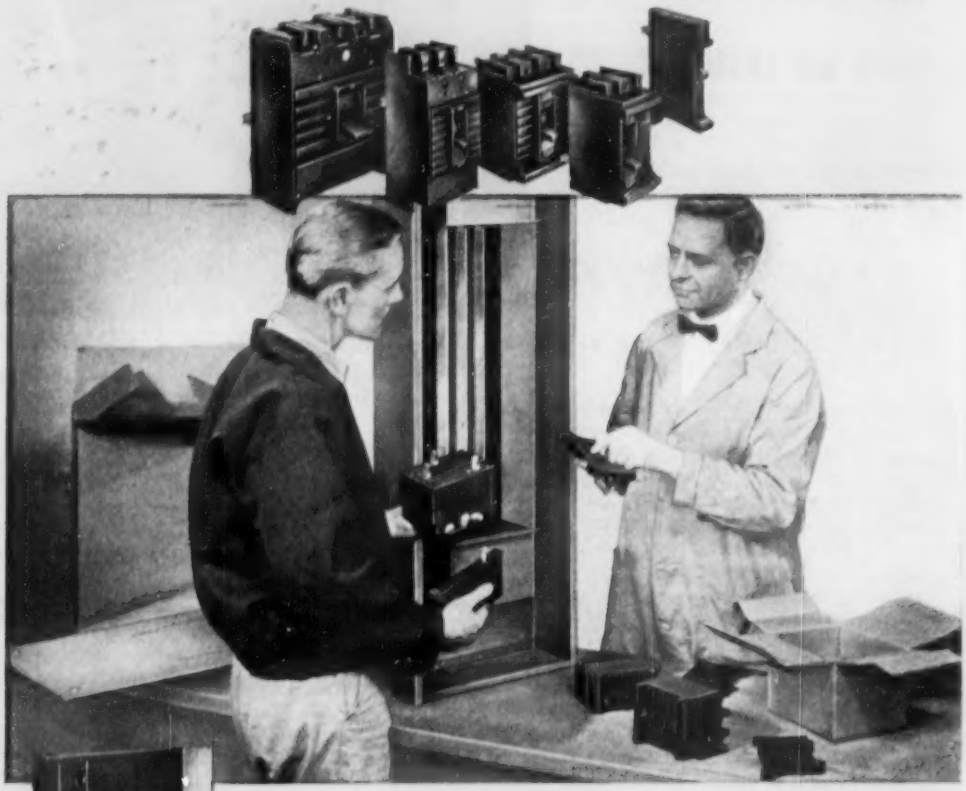
NOW... *your Federal Pacific* OVER-THE-COUNTER

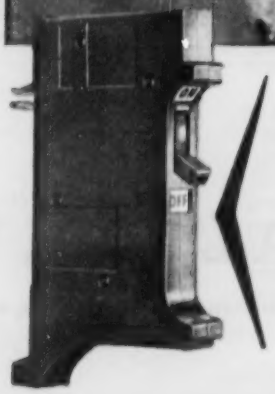
FEDERAL PACIFIC

Now a simple "over-the-counter" transaction solves virtually all your panelboard needs. Even complex panelboard orders can be filled INSTANTLY... RIGHT OUT OF DISTRIBUTOR'S STOCKS! And it's all made possible because Federal Pacific took the universally accepted Type AB Circuit Breakers ... added stabs ... and gave them "plug-in" flexibility.

The unique combination of STABREAKER flexibility and prefabricated STABREAKER panel enclosures provides the fastest method of obtaining the most flexible system of lighting and power distribution panelboards ever devised! Results: no more waiting for factory-assembled panelboards... simplified installation... big savings in time and money.

FPE
FEDERAL PACIFIC ELECTRIC





REVOLUTIONARY NEW BREAKER SLASHES SPACE AND COSTS!

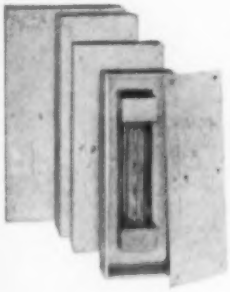
It's a big 2 for 1 story for panelboard lighting circuits... the new single-pole "NE-S" frame STABREAKER! Gives twice the number of lighting circuits in the same space occupied by conventional single pole breakers. Only 1 1/16" wide! Half the former width...less than half the former cost...without sacrifice of AB circuit breaker quality.

Finest Products Engineered

Distributor offers you PANELBOARD SERVICE *with*

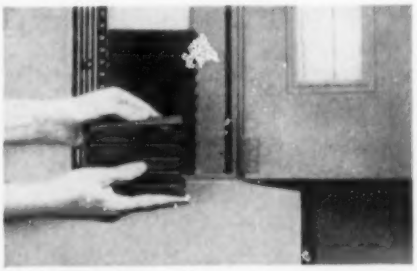
STABREAKER

HOW STABREAKER "OVER-THE-COUNTER" PANELBOARD SERVICE SAVES YOU TIME AND MONEY



1. Four different size panel assemblies are available (single and double bussing) to accommodate "NE-S", "NF-S", "NJ-S" frame STABREAKERS. Main capacities are up to 600 amps. The branch circuits required determine the size panel assembly you need.

2. Then "plug-in" the combination of ratings and frame sizes of STABREAKERS required. All standard ampere ratings through 225 amperes available.



3. When space for spare branches is needed, complete dead front is secured by means of filler plates included with each panel assembly. Merely break off required section of filler strip and slide into place. Trim holds breakers and filler strip firmly.

4. Fasten trim in place with self-indicating trim clamps and the STABREAKER Panelboard installation is complete.

STABREAKERS for AB-I Enclosures, too!

The same plug-in STABREAKERS used in STABREAKER Panelboards can be used for individually enclosed circuit breakers, too. With STABREAKER you simply "plug-in" all ratings from 15 through 225 amperes in only two NEMA-1A StAB-Inclosures. Results: unmatched flexibility and convenience . . . simple interchange of ratings . . . visible disconnect . . . simplified installation.

FEDERAL PACIFIC ELECTRIC COMPANY

Main Office: 50 Paris Street, Newark, N. J.

FPE

FEDERAL PACIFIC ELECTRIC

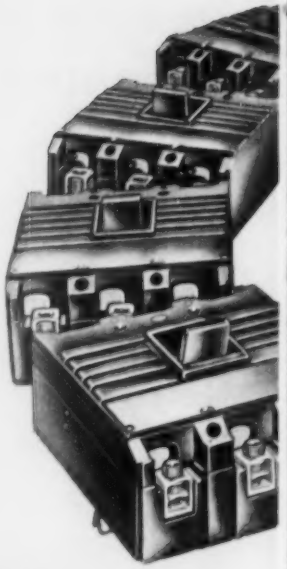
for unmatched AB-I

FEDERAL PACIFIC

By simply adding "stabs" to Type AB molded case circuit breakers, Federal Pacific has created STABREAKER—the greatest single advance in industrial circuit breaker design in years!

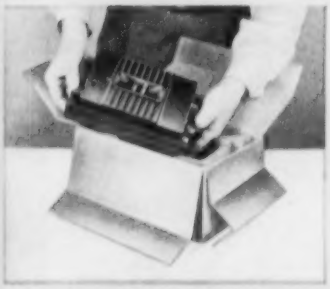
Now you can plug-in any rating from 15 to 225 amperes in only two NEMA 1-A STAB-INCLOSURES! One STAB-INCLOSURE accommodates the "NE-S" and "NF-S", and the other the "NJ-S" Circuit Breakers! Two more enclosures, of the bolted type, round out the complete NEMA 1-A AB-I enclosed circuit breaker line. One for the NK, and NKL. The other for the NL.

With plug-in type STABREAKERS and only two enclosures you benefit from undreamed of flexibility, convenience and savings in maintenance! Just look at some of the advantages you receive:

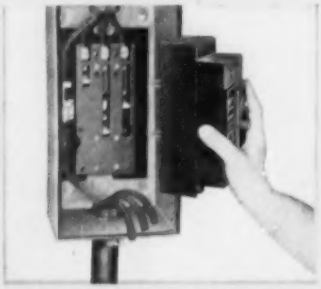


FPE
FEDERAL PACIFIC ELECTRIC

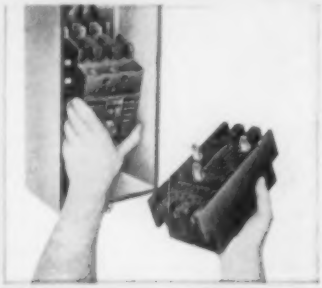
* *Direct from your Federal Pacific Distributors' stocks!*



INDIVIDUALLY PACKAGED STABREAKERS AND NEMA 1-A STAB-INCLOSURES. For your convenience, are separately packed...can be stored safely until ready for use.



PLUG-IN INSTALLATION. The simplest installation possible. No blind fishing for hidden screw holes because breaker automatically aligns itself when "plugged-in". Bolts through breaker front provide extra holding power. And you've got an entire boxful of space for line side wiring.



SIMPLE INTERCHANGING OF RATINGS. Nothing is easier than accommodating changes in amperage ratings. Simply pull out STABREAKER to be replaced...disconnect load side wiring. Then plug-in the new STABREAKER, reconnect load wires and it's done! No need ever to touch line leads if you have conductors of ample capacity.

Finest Products Engineered

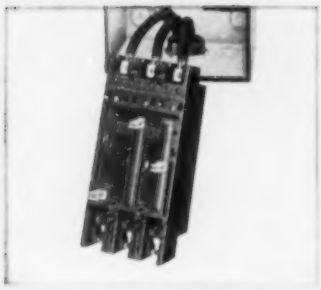
FEDERAL PACIFIC COMPANY

Main Office: 50 Paris Street, Newark, N. J.

Plants at Newark, N. J.; Long Island City, N. Y.; Atlanta, Ga.; Cleveland, Ohio; St. Louis, Mo.; Dallas County, Texas; Scranton, Pa.; Los Angeles, Calif.; San Francisco, Calif.; Emeryville, Calif.; Affiliated plant: Toronto, Canada

flexibility . . .

stABreaker*

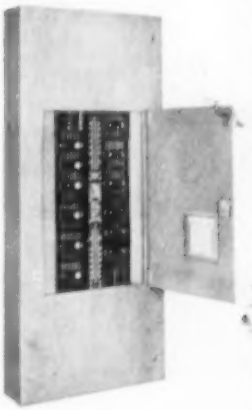


VISIBLE CERTAINTY OF BREAKER DISCONNECT. stABreaker with its unique feature of VISIBLE DISCONNECT overcomes the reluctance of safety engineers to circuit breakers. Absolute safety is insured because you *see* the break! Just pull out the stABreaker and let it hang by load wires.

ELECTRIC

stABreaker FOR PANELBOARDS TOO!

The same plug-in stABreakers are also the answer to your panelboard problems. With four basic enclosures and a complete range of stABreakers up to 225 amp. including the $^{11}/_{16}$" single-pole stABreaker, you can now get instant over-the-counter delivery of lighting and power distribution panelboards! You save delivery time! You save money! You save installation time!



FPE

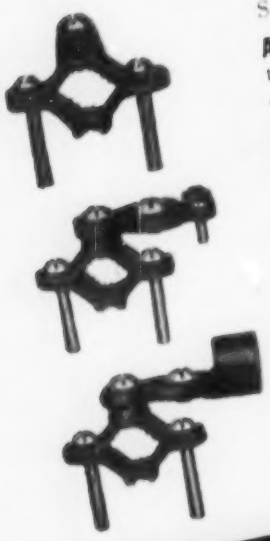
FEDERAL PACIFIC ELECTRIC

good grounds
for satisfaction

...and sales

WEAVER

CAST BRONZE GROUND CLAMPS



Satisfaction for your customers . . . *sales for YOU!* Here's why:

ALL BRONZE—won't rust or corrode. Safe grounds on copper tubing or galvanized pipe. *(Cadmium plated at no extra cost where code requires plating.)*

SWINGING TOP—cuts installation time. Extra metal at pressure points assures maximum strength without reducing conductivity.

PRICED TO MOVE FAST—lower than other leading clamps—with a good margin for YOU.

ONLY THREE TYPES TO STOCK—for every job: bare wire, metallic or non-metallic sheathed cable or rigid conduit.

WEAVER—THE ONLY COMPLETE BRONZE LINE for ¼" to 4" pipe—any type connection.

STOCK YOUR SHELVES WITH SALES—sell Weaver Cast Bronze Ground Clamps. Free samples available for demonstration.

Write today.

J. A. WEAVER Company

2110 HOWARD ST. ST. LOUIS 6, MO.

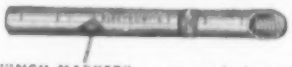
CEntral 1-8100

to all fields with these sales aids that sell Republic "Inch-Marked" E.M.T. exclusives

Here's an easy way to add more punch to your sales story—to drive home the five big selling points (right) that will bring customers to you for Republic Electrical Metallic Tubing—as well as other electrical items.

Order a supply of ad reprints, stuffers, folders and other merchandising aids that Republic makes available at no cost to you. Mail them to architects, contractors, journeymen and other prospects—both old and new. A steady, hard-hitting campaign of consistent impressions will soften up prospects—help pave the way for your salesmen's calls.

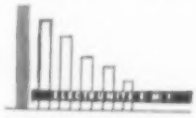
You can make a hit by calling your Republic representative for a supply today. He'll see that you get a complete package of promotional materials *bearing your imprint* . . . materials that describe the important advantages of Republic "Inch-Marked" E.M.T. and how they benefit your customers.



"INCH-MARKED" . . . an exclusive sales feature that teams up with the ELECTRUNITE Bender for easier fabrication and installation. In sizes ½", ¾", 1" and 1¼".

"GUIDE-LINED" . . . newest exclusive sales feature for easier bending alignment and better visibility. Eliminates "wows." On sizes ½", ¾", 1" and 1¼".

INSIDE KNURLING . . . another ELECTRUNITE exclusive. By actual tests makes wire-pulling easier. In sizes ½", ¾" and 1".



ACCEPTANCE . . . first in preference by brand name in unbiased surveys . . . an ELECTRUNITE feature.

BENDING INSTRUCTIONS . . . for the ELECTRUNITE® bending system . . . an ELECTRUNITE extra.

REPUBLIC STEEL

REPUBLIC STEEL

STEEL AND TUBES DIVISION
215 East 131st Street • Cleveland, Ohio

World's Widest Range of Standard Steels and Steel Products

✓*Sell* the Specialties
FOR HIGHER LIGHTING PROFITS
✓*Buy* the Specialties
FROM THE COMPLETE amplex LINE

Consistently, amplex brings you more of the higher-priced, higher-profit lighting specialties than any other single lamp manufacturer. Here are a few representative items from the complete amplex line.

THE ITEM	THE USES AND FEATURES
Indoor Colorbeams	For window and showcase lighting; indoor-outdoor color floodlighting; colorful accent lighting in restaurants and hotel lobbies. 75W R30 in 8 colors; 150W Par 38 in 10 colors for outdoor-indoor use; 150, 200 and 300W R40 in 8 colors. All colors brilliant, sparkling, guaranteed permanent. Pure silver sealed-in reflector lining. Guaranteed permanent efficiency.
R 57 HI-BAYS	For high level industrial lighting installation. Particularly recommended for dusty or smoky areas. 500 and 750W rating. Pure silver, sealed-in reflector, silvered neck.
Swivelites	For accent lighting in stores, restaurants, hotels, theaters, offices, churches. Double-ball swivel. Instant finger-tip positioning. Air flow ventilation for cooler lamp burning, longer life. "Adapt-a-Unit" construction for meeting changing lighting requirements.
Infra-Reds	Clear, Ruby, Inside-Silvered Reflector and Reflector Ruby; also "Hard Glass" (moisture proof) Inside-Silvered Reflector and Red Stain Reflector. All types 125-500W. Specially formed filaments and solid ceramic neck discs for maximum energy utilization. All-mechanical Amplock construction for permanent locking of glass bulb to base, even at tunnel temperatures.
Spotlites and Floodlites	*Indoor:* Spotlites for highlighting single display objects; Floodlites for entire display units and backgrounds. Range from R30 40W Baby Spots and Floods to R60 500W Super Spots and Super Floods. Pure inside silvered reflectors. *Outdoor:* Spotlites and Floodlites: Par 38, heat-resistant glass, aluminum reflector lining, 75 and 150W; "Hard Glass," 150-1000W.

When you carry the amplex line, your customers can count on you as a sure source for all their specialized lighting requirements. They'll look to you then, too, to fill their general-purpose lighting needs. Of course, the bread-and-butter items as well as the high-profit specialties are included in the complete amplex line.
With an amplex franchise, you also benefit from better discounts and a comprehensive program of advertising, merchandising and promotional material.
Write today for information on the amplex franchise and amplex specialties.

amplex
CORPORATION
Dept. EW-1056
111 Water St., Bklyn. 1, N. Y.

WHICH ONE

...for the safety of your installation?

Yes, both are rigid steel electrical conduit—but that's where the similarity ends! The National Electric Sherarduct conduit (on the left) is different in one vital way—it is lifetime protected by the unique Sherardizing process of dry galvanizing which actually alloys pure corrosion-proof zinc to the steel walls—threads and all. That's why you'll never see Sherarduct deteriorate like ordinary conduit (on the right). For thousands of structures, this Sherarduct protection has meant conduit life way beyond the life of the building.

A Sherarduct installation is the true mark of a quality wiring job. It means positive protection of the electrical system with no costly conduit replacements due to corrosion. Remember these factors—and what they can mean to your installation. Make sure NE Sherarduct is specified for your job.

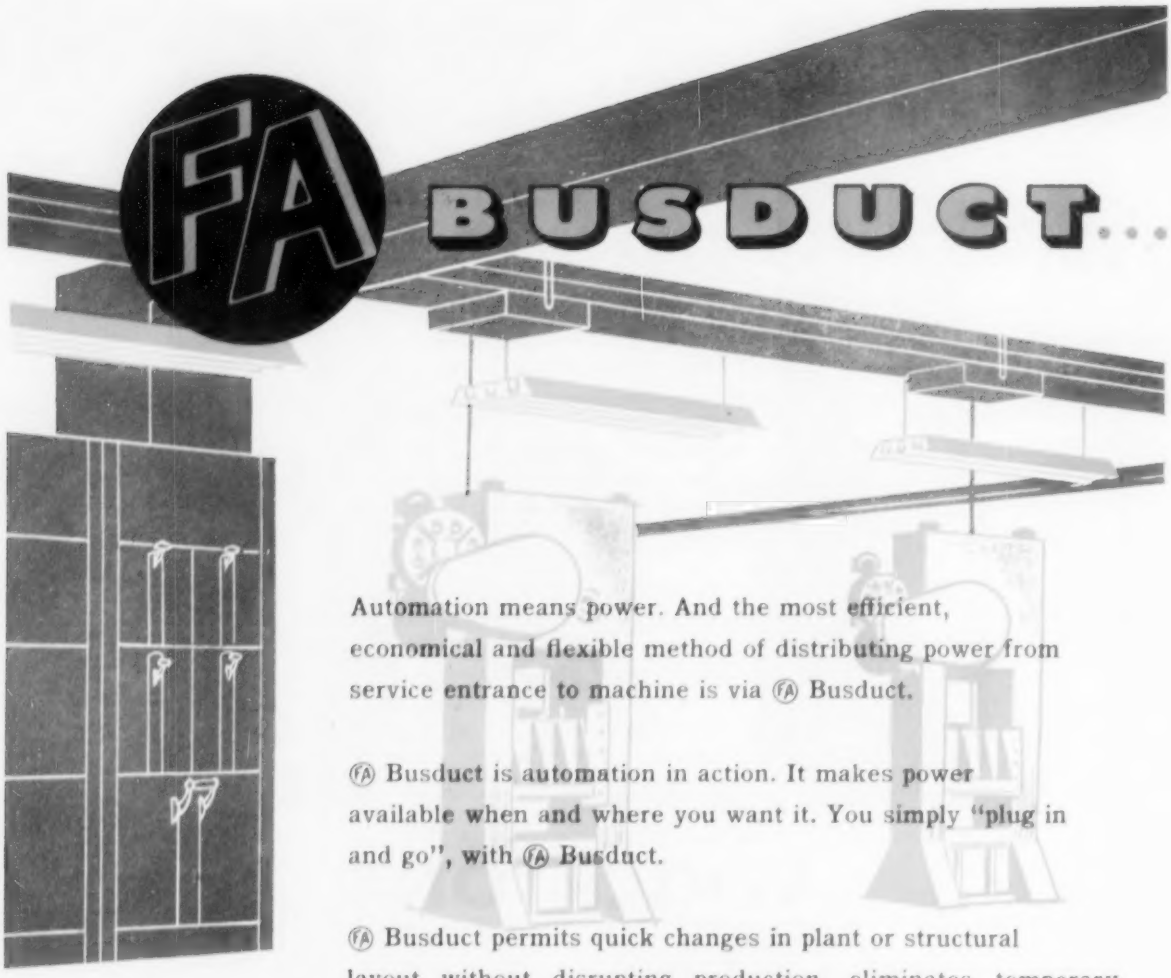
Sherardizing is Galvanizing at its Best!

Sherarduct is Galvanized Conduit at its Best!

National Electric Products

PITTSBURGH, PA.

3 Plants • 10 Warehouses • 36 Sales Offices



Automation means power. And the most efficient, economical and flexible method of distributing power from service entrance to machine is via FA Busduct.

FA Busduct is automation in action. It makes power available when and where you want it. You simply "plug in and go", with FA Busduct.

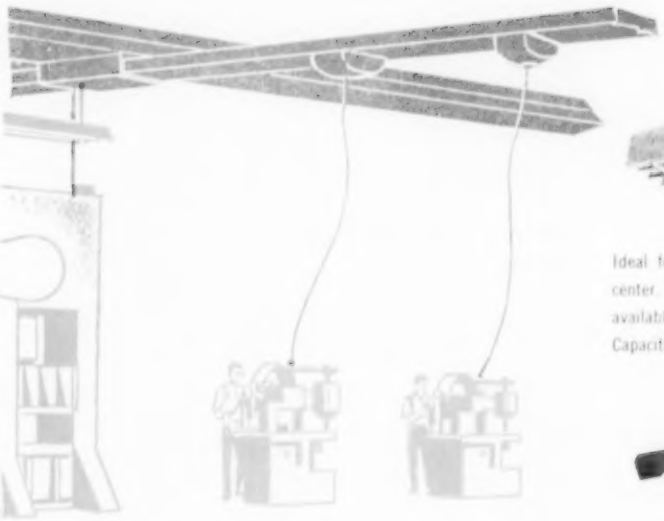
FA Busduct permits quick changes in plant or structural layout without disrupting production, eliminates temporary connections and long lead-ins, cuts maintenance costs and affords other savings by reducing power loss caused by voltage drop to a minimum. Too, it is 100 percent salvageable.

FA Busduct is approved by the Underwriters' Laboratories, Inc., for label service. It is made in standard lengths, and can be used to fit almost any electrical requirement. Sections can be run horizontal, or vertical, on floor level or overhead, through walls and tunnels, with raintite or dustite construction for special installation.

For the maximum in efficiency, economy and flexibility of plant operations, install FA Busduct, the modern system of power distribution.

For further information about FA Busduct consult your nearest FA representative listed in Sweet's or write for Bulletin.

the backbone of AUTOMATION

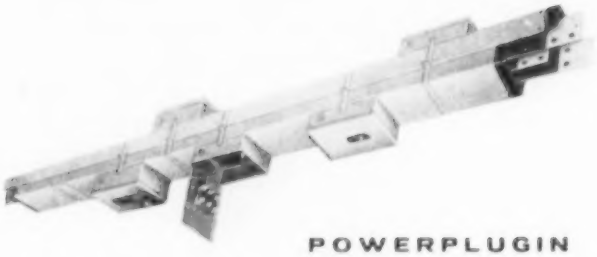


FEEDER BUSDUCT

Ideal for conducting heavy current from service entrance to distribution center. Available in single bar and Hi-Efficiency types. Hi-Efficiency duct is available in three types-open, protected ventilated and totally enclosed. Capacities 600 to 4000 amps, 600 volts and less.

POWERPLUGIN MIDGET SIZE

Provides "plug in and go" power for all small installations. Made in five and ten foot sections with plugin outlet every 12 inches. Ratings 100 amperes, 250 volts feeder capacity. Also available in 2, 3 and 4 conductor, solid neutral types.



POWERPLUGIN

Provides plug-in outlet every foot of the way. (Standard with outlets on 10 inch centers on one side. Available also with outlets on 20 inch centers on both sides.) Excellent for connection of machines, closer grouping of equipment etc. Ratings 225 to 1500 amps, 600 volts AC and less, with Klampswitch uz, Shutlbrak and Circuit Breaker plugin devices for 200 amperes or less.

WIRE AND CABLE DUCT

Provides complete distribution system for electric lights, heat or power and a signal system such as permitted under the National Electric Code Rules. Ideal for bringing a number of wires into a limited space. Duct is 2½" x 2½", 4" x 4" and 6" x 6" in size and is available in 1, 2, 5 and 10 foot sections with elbows, end enclosures, tees, etc. Special types available.

Frank Adam Electric Co.

Phone JEfferson 3-6550
BOX 357, MAIN P. O. • ST. LOUIS 3, MO.

makers of:
busduct • panelboards • switchboards
service equipment • safety switches
load centers • Quikheter

CRESCENT

ABC ARMORED CABLE, TYPE ACT

With Improved Features

EASIER • QUICKER • SAFER

★ PLASTIC INSULATED CONDUCTORS are clean, easy stripping, with solid, clear colors, and minimum diameter for easier installation in boxes.

★ PAPER TAPE which is tough, moisture-resistant yet easily removed, gives protection to the insulated conductors.

★ INSULATED BUSHING for protection against sharp ends of armor; furnished with each coil of cable.

★ BOND STRIP UNDER ARMOR is used in all sizes. A flattened aluminum bonding wire in contact with the underside of each convolution of the galvanized steel armor assures a permanent, low resistance through armor to ground.

★ PREFABRICATED BREAKING LINES. At intervals of every 1½ inches on CRESCENT ABC Armored Cable you will find a small cut mark. This cut mark shows the location of a prefabricated breaking line inside the armor.

Only a few short strokes of a hacksaw guided by the cut mark are required to cut through ONE outer ridge, and a bend by hand severs the armor. By actual test, this saves 30% of the time ordinarily required. A clean separation results, with no sharp edge. There is no chance of injury to insulation because only one OUTER ridge is cut.

The prefabricated breaking lines in the armor are so made that THERE IS NO REDUCTION of tensile strength, bending qualities, crushing resistance or electrical conductivity. This armor construction meets all requirements of Underwriters' Laboratories.

CRESCENT WIRE & CABLE

OVER 70 YEARS EXPERIENCE

CRESCENT INSULATED WIRE & CABLE CO.

Trenton, New Jersey

"SERVICE"

is his middle name!

His first name may be Joe, or Bob, or Henry, or any one of dozens of names, but to you, Mr. Distributor—he is SERVICE!

He is one of a dedicated army of Moe Light Delivery Drivers who today man Moe Light's fleet of over 40 tractors and trailers to insure fast, dependable shipment of Moe Light fixtures right to your door.

In any weather—under any and all conditions—he knows the importance of schedules—makes certain delivery is made to you—will, if delayed for any reason, phone ahead to let you know where he is and when he will arrive.

This—the Moe Light Delivery Plan—is designed to serve distributors all over America. The rapid expansion of its truck fleet is designed to meet your desires—your needs. It is part of Moe Light's pledge of quality products, nationally advertised, and delivered to your place of business in first class condition.

TRAVELING BILLBOARDS

On the highways . . . through numerous towns and cities in your trading area . . . giant trucks of the MOE Light Fleet travel on the way to your door. Wherever they go, the big MOE Light painted on their sides, reminds the public of a famous brand name . . . recalls the national advertising . . . *helps you sell!*

THOMAS INDUSTRIES INC.

Originators of Inspiration Lighting

Executive Offices — 410 South Third St., Louisville 2, Ky.

In Canada: 1401 The Queensway, Toronto 14, Ontario, Canada

MOE light DIVISION

One in a series to emphasize the economy of Electrical Wholesale Distribution

"Is bad news Comrad Commissar — more and more Americans recognizing Electrical Distributor serves and saves"

"Electrical Wholesaler Distribution reduces the Manufacturer's selling cost and thereby reduces the selling price of electrical supply material to the user. Therefore, our policy has been to distribute Thomas & Betts products exclusively through the Electrical Wholesaler."*

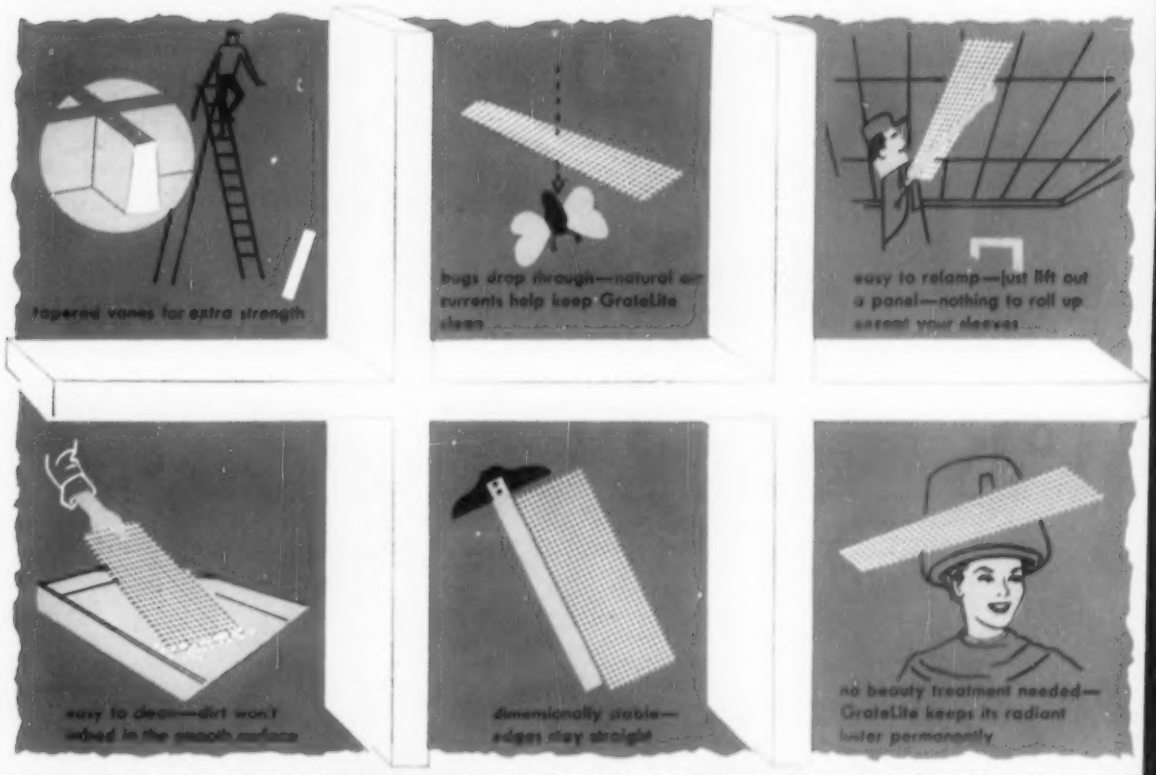
LOOK FOR THIS SIGN — IT'S THE MARK OF AN AUTHORIZED **T&B** DISTRIBUTOR

THE THOMAS & BETTS CO.
INCORPORATED
20 BUTLER STREET, ELIZABETH 1, NEW JERSEY
THOMAS & BETTS, LTD., MONTREAL, P. Q., CANADA
MANUFACTURERS OF FINE ELECTRICAL FITTINGS SINCE 1898

*Quoted from the T & B Plan of Wholesaler Distribution. If you would like to know the complete story of the T & B Plan, write:

GRATELITE* STAYS GOOD AS NEW year in-year out...

needs no babying...



CEILINGS OF GUTH GRATELITE LOUVER-DIFFUSER **GIVE BETTER LIGHT LONGER**

MAY WE SEND YOU DETAILED INFORMATION?

THE EDWIN F. Guth COMPANY · ST. LOUIS 3, MO.

TRUSTED name in lighting since 1902

*®U. S. Pat. No. 2,745,001
Canadian Patent Pending

Another **TRIANGLE** *multiple product Job*

HOUSTON

Everything's BIG in Texas—
and now Houston has added another BIG

$17,000,000 Building of Bank of the Southwest Opens Its Doors

2,103,500′ of TRIANGLE WIRE AND CABLE
322,580′ of TRIANGLE CONDUIT

That's how much top-quality Triangle footage went into the building. A sizeable order, by any standards, and delivered on time.

Triangle Distributors are able to meet deadlines on big orders like this because *Triangle's 100% distributor policy* means production is geared to distributors' needs, assuring them of ample stocks to meet heavy delivery schedules and emergencies.

And every foot of Triangle material is top-quality because Triangle's manufacturing plants are equipped with the most modern production machinery and laboratory facilities available . . . operated by men who know their jobs.

That's why those who know, specify **TRIANGLE**
IT MUST BE RIGHT

Bank of the Southwest. Its lobby, 63,000 square feet, is the largest in America. This ultra-modern building covers an acre and a half and rises 24 stories. The entire building is air conditioned by the largest electronically controlled system in the country.

ARCHITECT: Kenneth Franzheim
ENGINEER: H. E. Bovay (mechanical and electrical)
GENERAL CONTRACTOR: W. S. Bellows
ELECTRICAL CONTRACTOR: Fisk Electric Co.

Let's take a Quick Look at TRIANGLE

Up to date research

Large stocks in redistribution centers

TRIANGLE

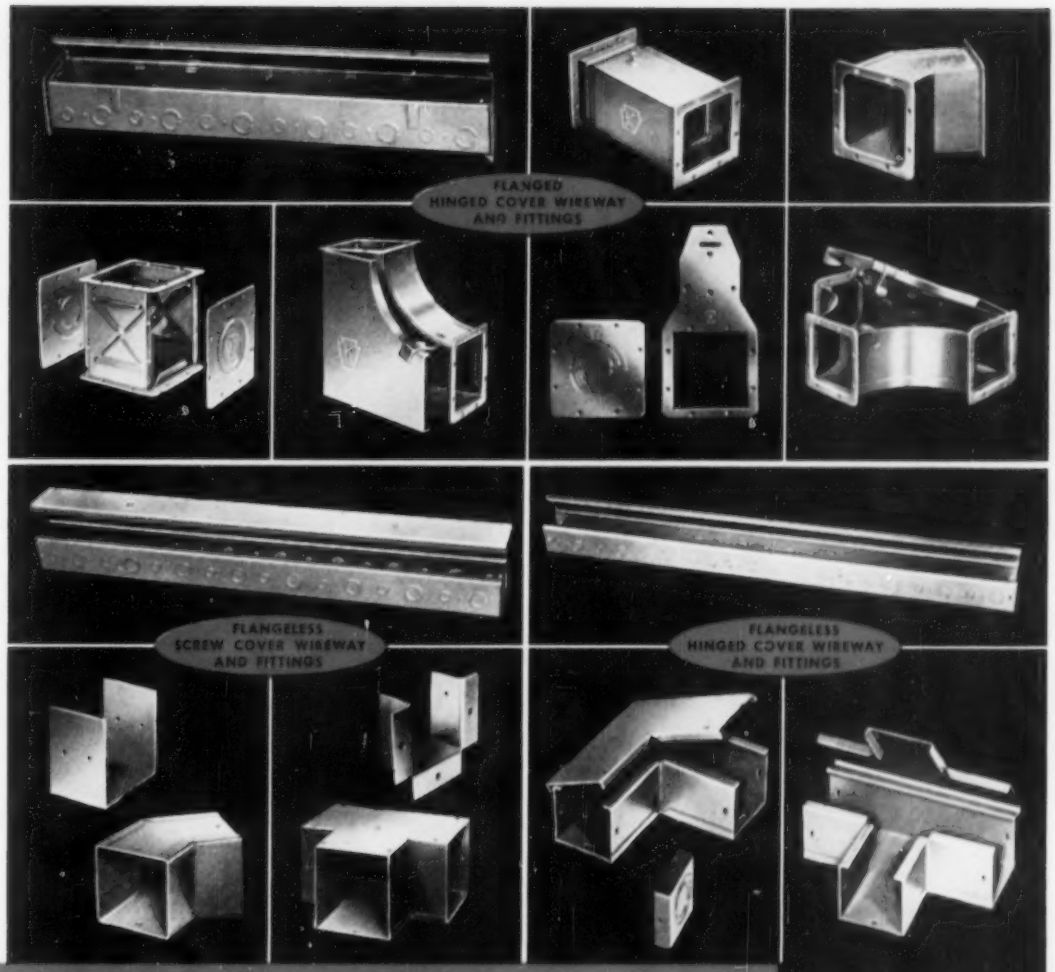
Ever expanding plants

The Triangle Trademark is your guarantee of quality

It Must Be Right
The Trade Mark of TOP Quality
TRIANGLE

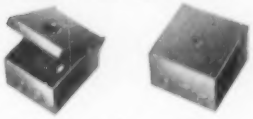
TRIANGLE
Conduit and Cable Co., Inc.

NEW BRUNSWICK, NEW JERSEY



SELL MORE, MAKE MORE WITH THE COMPLETE KEYSTONE QUALITY LINE

CABINETS AND PULL BOXES



No doubt about it! When it comes to wiring installation jobs, you can get *what* you want *when* you want it from the Keystone Quality Line. Wireways, for example, are available in both flanged and flangeless styles . . . with hinged or screw covers . . . with or without knockouts . . . and in sizes ranging from 2½" x 2½" x 1' through 8" x 8" x 5'. There's a wide selection of auxiliary fittings to choose from, too, plus cutout boxes and pull boxes in more than 50 different stock sizes . . . and a variety of telephone and current transformer cabinets to meet your exact requirements. And if it's outlet boxes or switch boxes you're looking for, you'll find that Keystone has them . . . in almost every type and size, with proper covers, too. What's more, every item in the Keystone Line is quality-built, priced right, and stocked for immediate shipment direct from factory warehouses! Want more information? Send for your free copy of the new illustrated Keystone catalog today!

It pays to figure on Keystone

KEYSTONE MANUFACTURING COMPANY

23328 SHERWOOD AVENUE • CENTER LINE (Detroit) MICHIGAN

. . . the Complete Line of Wiring Installation Equipment

SOLD ONLY THROUGH RECOGNIZED ELECTRICAL DISTRIBUTORS

Cable splices made faster, last longer in toughest "proving ground" here in The Bessemer Limestone and Cement Company's quarrying operation. Note the rough surfaces over which the cable is dragged. Under conditions that vary from extreme dryness to complete submersion, Bessemer reports exceptional results from the rugged splices made with Okonite Tapes.

Okonite Tapes reduce down-time for Bessemer shovels

The Bessemer Limestone and Cement Company has reduced down-time on its electric shovels two ways by using Okonite Tapes in splicing its high voltage portable shovel cables. First, tough, waterproof splices can be made in the field without taking the cable to the shop and without buying any special molds and other equipment. Second, splices made with Okonite Tapes have been in service since 1948 without added time-loss in remaking.

Cables and splices are dragged over rocks, frequently lie completely submerged in water, and are constantly exposed to sun, rain, snow and ice. Yet Okonite splices have maintained their waterproof toughness for seven years of this treatment. No wonder Bessemer has standardized on Okonite Tapes.

Each splice is designed to give maximum electrical and mechanical protection for operation at 4160 volts. Okolite Corona-Resisting Tape fuses into a solid wall of self-vulcanizing high voltage insulation. Over the shielding tape applied about the three-conductor core, a solid wall of Okoprene Weather-Resistant Tape gives full neoprene protection to the splice. This combination of Okolite and Okoprene Tapes provides the toughness and complete moisture resistance necessary for continued service under such severe operating conditions.

Specify Okonite tapes for the tougher jobs. Get them from your Okonite Tape Distributor, or write to The Okonite Company, WH, Tape Department, Passaic, New Jersey.

Available Through Authorized Distributors Only.

OKONITE

splicing tapes

3522-A

BLACKBURN *Hi-Strength* CONNECTORS

Make BETTER Connections — HIGH PRESSURE Connections!

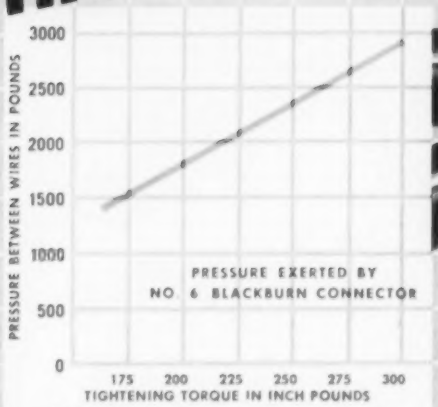


Chart shows the exceptionally high pressure exerted between the contact surfaces of the wires by a No. 6 BLACKBURN Hi-Strength Connector, at various torques.

Listed by Underwriters

HIGH PRESSURE Connections Are BETTER Connections

High pressure increases the contact area between the wires, effectively seals the contact surfaces from moisture and oxidation, and produces a lasting, low-resistance connection.

BLACKBURN Connectors Make Lasting High Pressure Connections because:

(1) They are made with the right combination of alloys — high strength alloys — to reduce frictional losses in the threads.

(2) They are made with smooth-cut threads, to increase their efficiency. These two factors insure more of the tightening torque being converted to "pressure between wires".

(3) Their corners and edges are all rounded, so that the high pressure cannot injure the wires.

(4) They actually test stronger than other connectors when pulled to destruction in a tensile-testing machine. This means that BLACKBURN Connectors have that extra strength required to maintain the high "pressure between wires" without stretching and loosening.

(5) The coefficient of expansion of the alloys used is substantially equal to that of copper. A temperature change of 100° F results in only 1% change in the "pressure between wires".

Yes, BLACKBURN Hi-Strength Connectors definitely make better connections — *for your protection!*

JASPER BLACKBURN CORPORATION

35 Madison St., St. Louis 6, Mo. **Phone MAin 1-2821**

HERE IS THE GREAT NEW REMCON SELLING SENTENCE

we'll pay you $1.00 to try Remcon!

Use Remcon on your next 3-way switch installation. Then send us the relay box top with your business card and we'll mail you one dollar !

SEEING IS BELIEVING!

You can make 3-way switch installations in half the time—and pocket 40% more profit with REMCON. The REMCON low-voltage relay with its built-in transformer now makes it economically possible for you to give your customers silent 3-way and 4-way switching. All you do is switch the 2 wires of each switch to the 2 wires of the silent REMCON relay. It's simple. It's fast. It's foolproof. REMCON eliminates working with armored cable on all switch legs. You use only light pliable, low voltage wire that's easy to handle and strip. With REMCON, you not only save time, you also provide silent switching at no increase in cost of materials. Take advantage of the REMCON 3-way switch "dollar-back" offer. Get all the details at your electrical supply house.

REMCON, is a division of Pyramid Instrument Corp., Lynbrook, N. Y. manufacturer of the famous AMPROBE snap-around volt-ammeter.

install **REMCON** *simplified low-voltage switching devices*

this ad appears in all electrical magazines

REMCON'S dollar-back deal builds business for you!

To bring you more high-profit customers for low-voltage REMCON, we're making a sensational "no-strings" offer: *We'll actually pay your customers one dollar to let* REMCON *prove itself to them!*

Tell your next customer he can install 3-way switching with REMCON in half the time—and boost his profit as much as 40%. Then clinch the sale by telling him about the sensational REMCON "Dollar-Back" offer. Once he tries REMCON, once he sees how he can save time and money you're on the way to years of profitable REMCON sales. One REMCON sale always leads to another!

REMCON is spreading the good news with color ads in all the electrical magazines and a big direct mail campaign to your customers. Tie-in by putting the free REMCON "Dollar-Back" Deal Display right on your counter.

REMCON simplified low-voltage switching devices. A division of Pyramid Instrument Corp., Lynbrook, N. Y., manufacturer of the famous AMPROBE snap-around volt-ammeter.

U.S. Laytex® ROYAL MASTER ELECTRICAL CORDS

Have 3 times longer cord life!

TESTS PROVE IT!

Here are some of the startling facts:

- **26% greater *oil* resistance**
- **33% greater *heat* resistance**
- **38% greater *tension* or breaking strength**
- **50% greater resistance to *cutting***
- **58% greater *abrasion* resistance**
- **118% greater resistance to *tearing***
- **197% greater *impact* strength**
- **488% greater *flexibility***

than the average of molded cords of other makes.

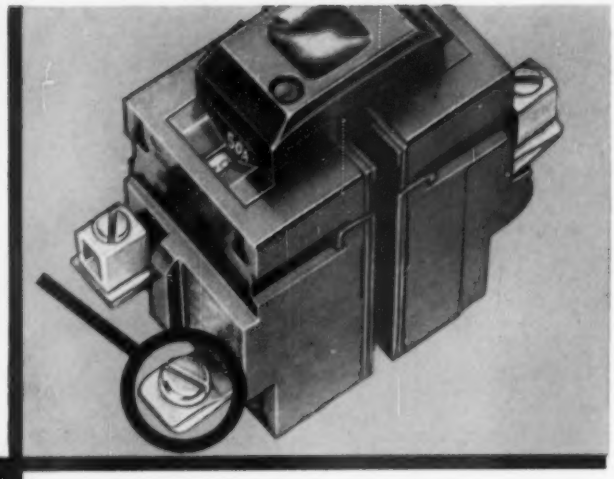
Your United States Rubber Company sales engineer will call on you to prove CONCLUSIVELY that U. S. Laytex Royal Master is the finest portable cord ever made. Don't place any order for portable cords until you get the full facts about U. S. Laytex Royal Master. Get in touch with us at Electrical Wire and Cable Dept., United States Rubber Company, Rockefeller Center, New York 20, N. Y., if one of our sales engineers hasn't already visited you.

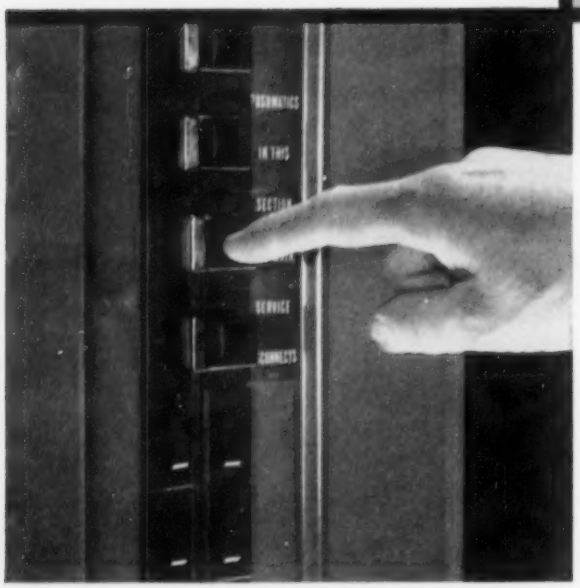
US RUBBER

Electrical Wire & Cable Department

United States Rubber

THE BIG NEWS in circuit breakers is this BullDog Two-Pole, Common Trip Duo-Guard Pushmatic. Simplifies wiring. Makes installation easier and faster. The new terminal screw retainer (circled) ends fumbling and wasted time . . . you get a *bolted* connection fast.





New Two-Pole "Common Trip" Duo-Guard Pushmatics

The heavy-duty, safe, positive switching and protective device

There's real convenience, real safety in two-pole breakers now. BullDog's new Duo-Guard Pushmatic® Common Trip breakers for Electri-Centers® are now available for two-pole, 220V circuits (15 to 50 amperes)—for residential, commercial, institutional and industrial applications.

Operation of this new two-pole Common Trip Pushmatic is simple and safe. (1) A push of the button gives simultaneous "ON" or "OFF" operation. (2) In the event of an overload or short circuit, both poles are automatically de-energized.

Of course, Duo-Guard protection is built into each Common Trip, too, just as it is into single-pole Pushmatics—your assurance of automatic, two-way protection *in any circuit.*

Stock the Common Trip—you'll find it rates high with customers. See your BullDog field engineer or write BullDog Electric Products Co., Detroit 32, Mich.

©BEPCO

IF IT'S NEW . . . IF IT'S DIFFERENT . . . IF IT'S BETTER . . . IT'S **BULLDOG**

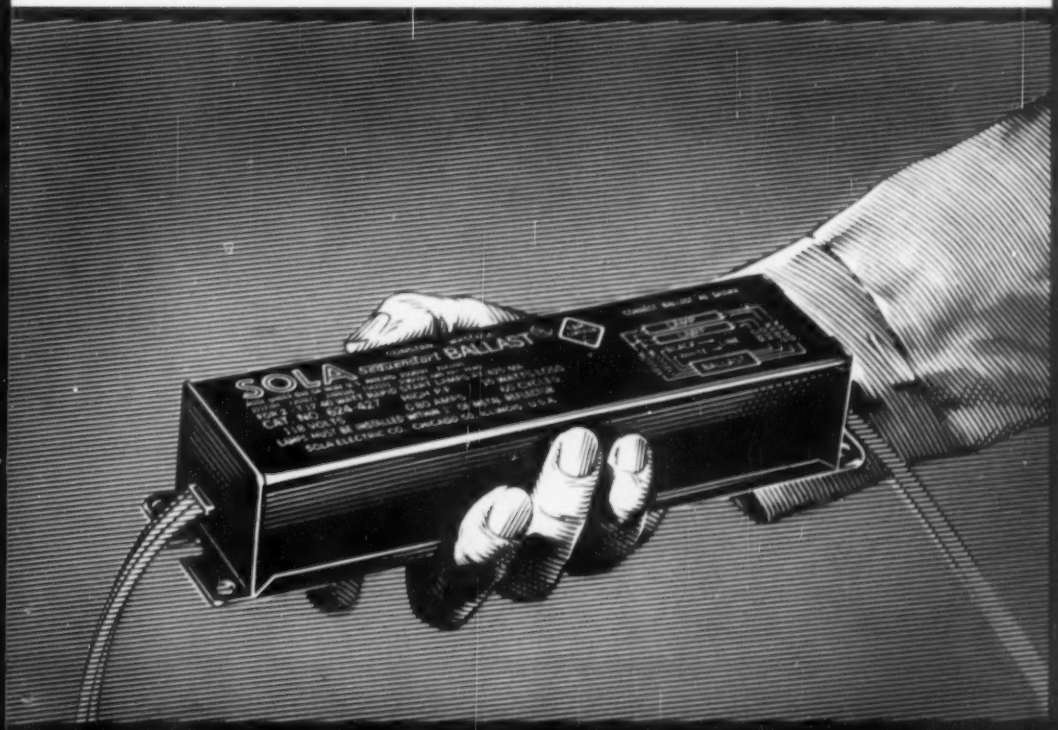
ELECTRIC PRODUCTS COMPANY

A Division of I-T-E Circuit Breaker Company

Export Division: 13 East 40th Street, New York 16, N. Y. • *In Canada:* BullDog Electric Products Co. (Canada) Ltd., 80 Clayson Road, Toronto 15, Ont.

Now you can make your full profit on "in-warranty replacements" of Sola Fluorescent ballasts

No Sola ballast stock needed!



Revolutionary new Sola Ballast Service Plan enables you to:

1. *Replace any in-warranty defective Sola ballast with an equivalent Sola ballast or any equivalent certified CBM ballast, and . . .*

2. *Make your FULL CONTRACTOR'S RESALE PROFIT on any SOLA ballast replaced under the simple terms of the plan!*

Just what is the new

Sola Ballast Service Plan?

It is a revolutionary new plan which makes it possible for electrical contractors to get immediate replacement of any in-warranty defective Sola ballast, anywhere in the United States.

Any qualified electrical wholesaler who stocks certified CBM ballasts for over-the-counter sale can make the replacement. Wholesalers do NOT have to stock Sola ballasts to participate in the program, but can make replacements with any equivalent certified CBM ballast.

Participating electrical wholesalers will be designated as Sola Ballast Service Centers and will receive their original cost on replacements made, plus their full contractor's resale profit from Sola Electric Co. This applies to any Sola ballasts replaced under the terms of the plan, regardless of the make of the certified CBM replacement.

Who benefits by the new Sola Ballast Service Plan?

The Electrical Wholesaler benefits because he recovers not only his cost but realizes his full contractor's resale profit on any in-warranty defective Sola ballast he replaces. He does not require any additional ballast stock. It's a real service to his customers, at a profit to him.

The Electrical Contractor benefits because he receives an immediate, free replacement for any in-warranty defective Sola ballast from his local wholesaler. The contractor keeps his customers happy with his service.

The User benefits because there's absolutely no delay in getting a new ballast to return his fixture to top working order, anywhere in the United States.

The Fixture Manufacturer benefits because he's assured that the ultimate user, regardless of location, will get quick, satisfactory service in restoring his fixture to perfect operating order in those rare instances when a Sola ballast fails.

The Quality Standard of Sola Ballasts

The Sola Ballast Service Plan is made possible because Sola ballasts have an exceedingly low failure ratio. Less than 14/100-of-1% of *all* Sola ballasts fail in warranty and less than 9/100-of-1% of Sola Rapid Start ballasts fail in warranty, according to carefully maintained records. This unusually low failure ratio is due to Sola's exceptionally high standards of quality in engineering and manufacturing.

CBM CERTIFIED by ETL

UL

Here's how the Sola Ballast Service Plan works

1. *Should an electrical contractor find a Sola ballast which has become defective within the warranty period, he returns it to any qualified electrical wholesaler anywhere in the United States. The wholesaler checks the date of manufacture stamped on the ballast cover. If the ballast failed within two years of its manufacturing date, it is considered "defective in-warranty".*

2. *The electrical wholesaler is authorized by Sola Electric Co. to replace at no charge the defective in-warranty Sola ballast with another Sola ballast if he has it in stock. If not, he refers to a Cross Index Ballast Replacement Guide, provided by Sola, to find an equivalent certified CBM ballast of competitive make.*

3. ***The contractor signs a receipt, and the wholesaler immediately gives him the equivalent certified CBM replacement unit from stock. The electrical wholesaler forwards a copy of the receipt with his invoice to Sola Electric Co. Sola credits him with his cost plus his full contractor's resale profit for the ballast replacement, just as if the replacement ballast transaction was a sale to the electrical contractor. The wholesaler holds the defective ballast.***

4. *Within 30 days, Sola Electric Co. issues a check to the electrical wholesaler for the total value of all credits due him. Or, if the wholesaler prefers, Sola will credit the accrued amount against any Sola equipment he may wish to order. Sola notifies their local representative of any ballasts replaced under the plan. He will call on the wholesaler within six weeks of the replacement transaction and will inspect and dispose of any defective ballasts the wholesaler has on hand.*

SEE NEXT PAGE

Offer this free service to your customers . . .

Act NOW to tie-in with the Sola Ballast Service Plan. You get free listings in Sola national advertising directed to electrical contractors; other free sales promotion aids

If you are a qualified electrical wholesaler stocking certified CBM ballasts for over-the-counter sale, just fill in the coupon at the bottom of this page, attach it to your letterhead and send it to Sola Electric Co. That's all there is to it! There's absolutely no obligation on your part to buy one single Sola ballast. By participating in the program, you will be providing an added service to your customers and will realize your full resale profit on any Sola ballast replaced under the plan.

As soon as we receive your coupon, your company name will be included among those to be listed FREE as Sola Ballast Service Centers in national advertisements and mailings to electrical contractors. In addition, you will receive a free sample packet of advertising and promotion materials, available in quantity, to help you sell more ballasts.

Your sample packet will include these FREE promotional aids:

- *A detailed explanation of the Sola Ballast Service Plan.*
- *A cross index chart of Sola ballasts and competitive, certified CBM equivalents.*
- *A door and/or window emblem and an attractive counter card to identify your company as a Sola Ballast Service Center.*
- *A sample of the free letterhead stickers which identify your company as a Sola Ballast Service Center.*
- *Printed proofs of ad mats available free to you for use in your own advertising program.*
- *A sample of the free envelope "stuffer" available to you free, in quantity, for enclosure in mailings to your contractors.*
- *An order form for your convenience in ordering free quantities of materials in the sample kit.*

IMPORTANT: Mail the coupon NOW. Your company name and address will be listed free in Sola's national advertisements and mailings to your electrical contractors, as a Sola Ballast Service Center.

SOLA Electric Co.

4633 W. 16th St., Chicago 50, Ill.
Bishop 2-1414

(Attach coupon to your letterhead)

TO: SOLA ELECTRIC CO.
4633 West 16th St., Chicago 50, Ill.

As an electrical wholesaler who stocks certified CBM ballasts for over-the-counter sale, I want my company to be listed free in Sola's national advertisements and mailings as a Sola Ballast Service Center. I realize there is absolutely no cost or obligation of any kind in accepting this free offer. Please send complete information and free sample kit of advertising and promotion materials to:

My name _____

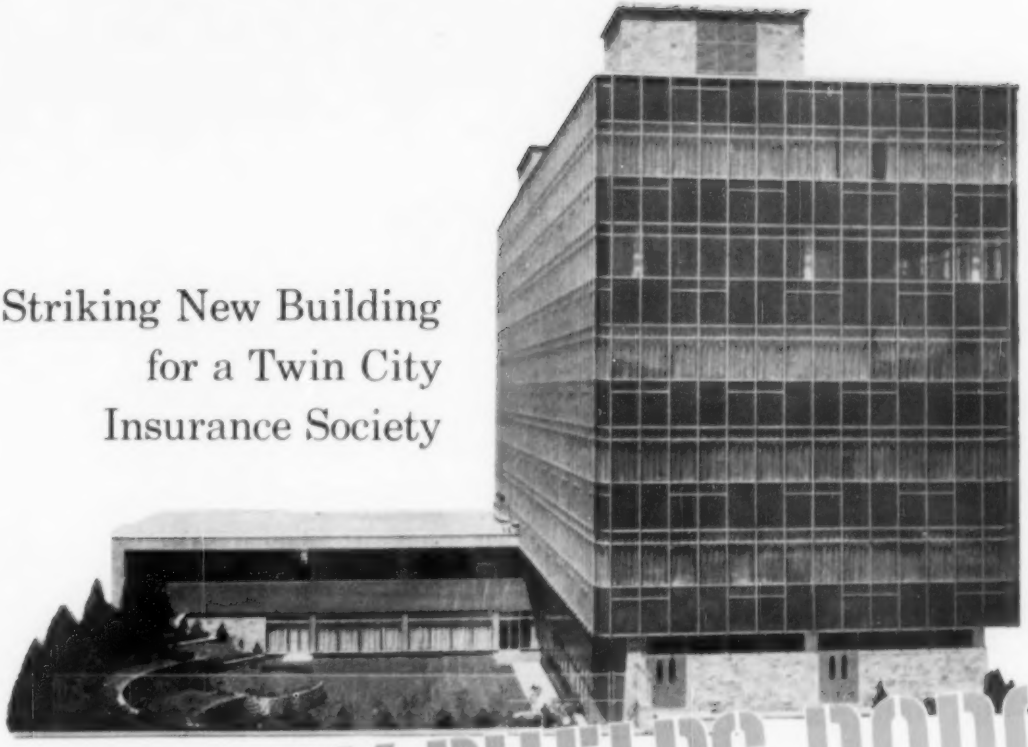
Company _____

Address _____

City _____ Zone _____ State _____

Brands of Ballasts stocked _____

Striking New Building for a Twin City Insurance Society



WIRE BY PHELPS DODGE

Latest addition to the growing Minneapolis, Minn., business center is the beautiful new home office of the Lutheran Brotherhood, a fraternal life insurance society. This modern building boasts a number of unusual features, including a unique sunken garden and terrace, exterior walls of blue-green porcelain-enamel steel and 640 windows of double-pane plate glass.

One of the requirements for this building was an electrical system of the highest quality. That's why Phelps Dodge building wire and paper insulated power cable were installed exclusively.

On every wiring job where top-quality materials, expert workmanship and experienced "know-how" are called for, *it pays to rely on Phelps Dodge and your Phelps Dodge distributor!*

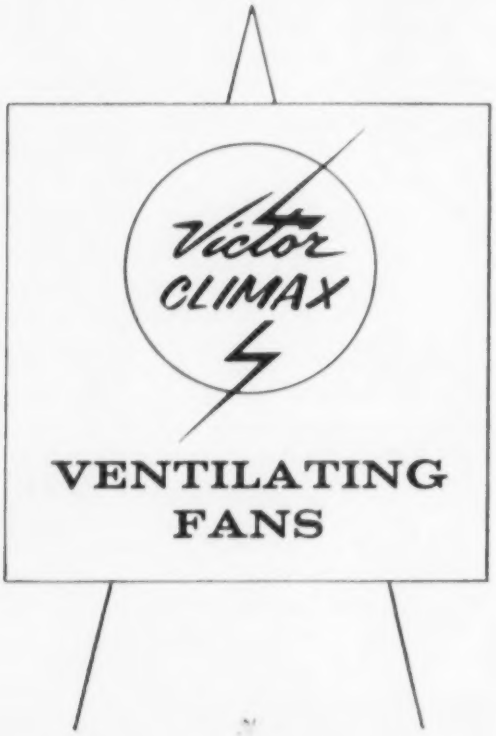
PHELPS DODGE COPPER PRODUCTS CORPORATION

SALES OFFICES: Atlanta, Birmingham, Ala., Boston, Buffalo, Charlotte, Chicago, Cincinnati, Cleveland, Dallas, Detroit, Fort Wayne, Greensboro, N. C., Houston, Jacksonville, Kansas City, Mo., Los Angeles, Milwaukee, Minneapolis, New Orleans, New York, Philadelphia, Pittsburgh, Portland, Ore. Richmond, Rochester, N. Y., San Francisco, St. Louis, Seattle, Washington, D. C.

The
electrical trade's
BIG-VALUE, LOW-COST
fan line . . .

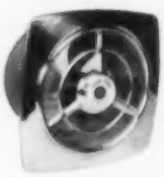
VICTOR CLIMAX

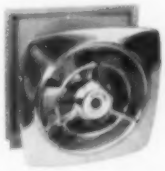
with features of the highest-priced fans, low-priced for the budget



. . . the electrical trade's
exclusive brand

home, you can put a CLIMAX fan in every home . . . at every price level!





The "engineered" ventilating fan line with the budget price. 8" and 10" ceiling and automatic wall models. Pull or wall switch, white or chrome grille.

For "rec" rooms, kitchens, launderies, bathrooms.

Warranty and 5 year guarantee backed by $30,000,000 protect your sales and your profits.

For complete
Victor Climax catalog and price list,
write to

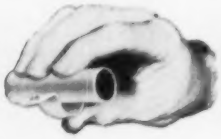
VICTOR VENTILATOR DIVISION

THE PHILIP Carey MFG. COMPANY

MIDDLETOWN, OHIO

Blackhawk Industries' SNAP STRAP

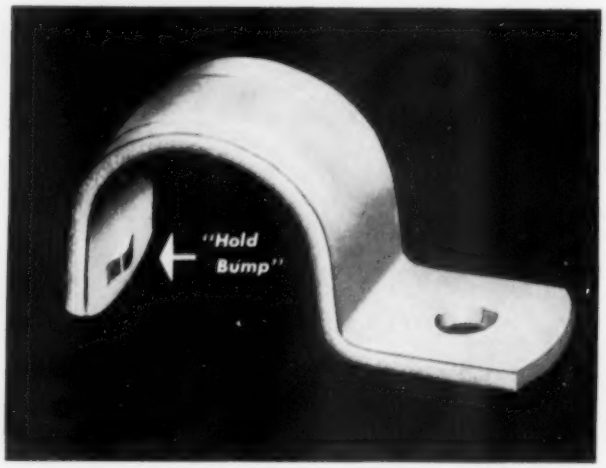
...the original snap-on clamp...

snaps tighter  holds its grip

easier to sell because it's easier to use

Why it's better...

The B-I SNAP STRAP has the "hold-bump" at the open end of the bracket—really grips—resists slips like an alligator wrench! Ribbed bracket adds to the snap, provides rigid contact support of the conduit.

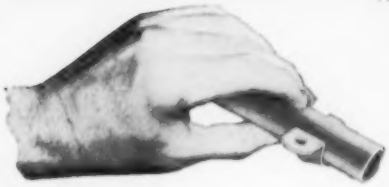


"Patent Pending"

Quick installations, more jobs, more sales

Faster installations mean more profit for your customer and for you—and Blackhawk Industries' SNAP STRAP *means* faster installations... eliminates time-wasting fumbling, dropping, annoyance—all the *temper* is in the SNAP STRAP.

The SNAP STRAP is made of heavy gauge steel, zinc plated after fabrication. Made in a wide range of sizes for rigid and thinwall conduit.



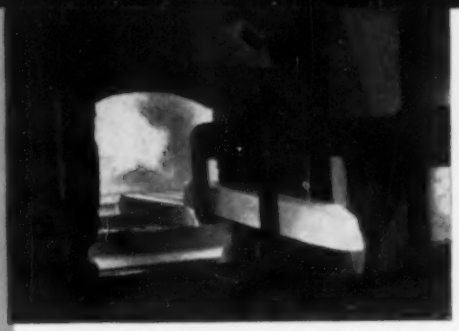
specify B-I when you buy

sold only through Electrical Wholesalers

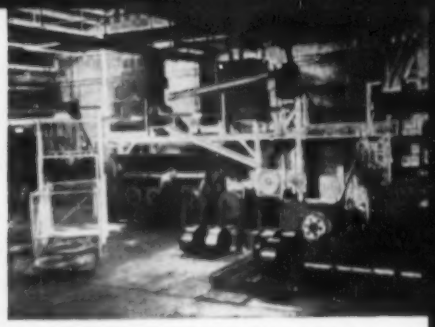
Write for FREE catalog

Blackhawk Industries DUBUQUE, IOWA

Short, short course on how top-quality building wire and cable is made—

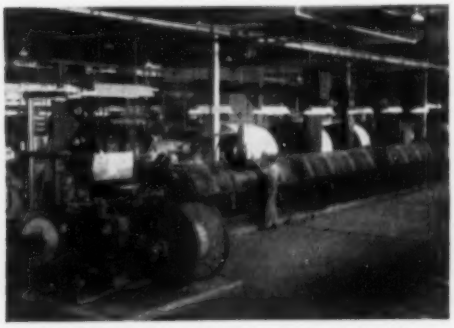


1. Electrolytic copper bars of the highest purity are heated to 1800°F.—then hot rolled into coils called "black rod." Quality control starts here, too, since rod must be thoroughly descaled before further processing.

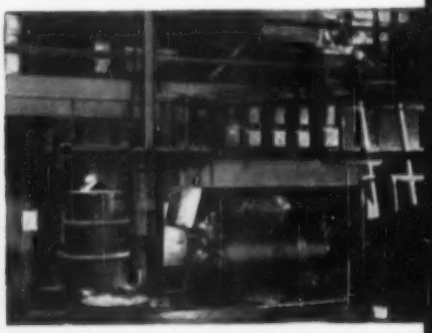


2. Next, copper rod is cold-drawn into wire of required size. The heavy screened enclosure above which feeds rod to drawing unit is a safety device conceived by Circle engineers and now widely used in the industry.

3. After final drawing, Circle wire is heat-treated in a process called "annealing." Electric furnaces under rigid atmospheric and thermal control restore the wire's original workability. Wire is now ready for tin coating.



4. Next step after tinning, with #6 AWG, or larger, is stranding. Above, an experienced operator runs one of Circle's modern units. This high speed machine assembles 12 individual wires in one operation.



5. Finally, wire is ready for insulation, most common being the rubber compounds. Mixing is done in a "Banbury" mixer shown above. Circle formulates and mixes its own compounds for maximum control.

6. After proper insulation is applied, wire may then be sent to the braiders for a mechanical protective covering. This may be a single or double cotton wrap saturated with a flame-retarding, moisture-resisting compound.

7. Circle wire and cable undergo many tests before shipment. Perhaps the most severe is this water test. An electric charge is introduced while coil is immersed in water. Any fault in insulation is immediately indicated by a Circuit Breaker.

These are only a few of the many operations involved in making all types of Circle top-quality building wire and cable. Add to this the constant testing and checking at every step along the way—and it can be seen that making wire is not as simple as it may seem.

One thing, however, is certain at Circle: whatever the product or processing method involved, there is never any relaxing of the rigid quality control necessary for producing the finest possible wire and cable. Circle Wire & Cable Corp., 5500 Maspeth Ave., Maspeth, L. I., N. Y.

C W C

CIRCLE

WIRE & CABLE
a subsidiary of
Cerro de Pasco Corporation

PLANTS: Maspeth and Hicksville, N.Y. **SALES OFFICES & WAREHOUSES:** Atlanta, Baltimore, Boston, Chicago, Cincinnati, Dallas, Des Moines, Detroit, Houston, Jacksonville, Los Angeles, Miami, Minneapolis, Nashville, New Orleans, Omaha, Philadelphia, Pittsburgh, Portland, Ore., San Francisco, Seattle, St. Louis. **ADDITIONAL SALES OFFICES:** Cleveland, Davenport, Ia., Newark, New Haven, New York, Utica.

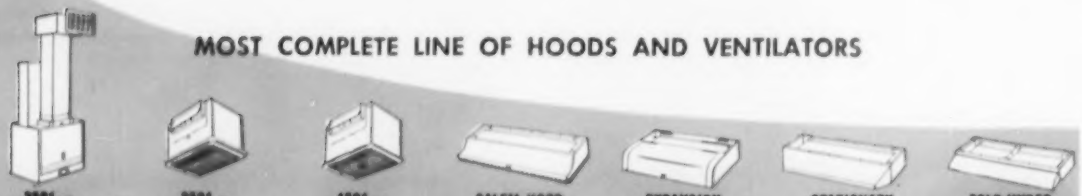
RUBBER COVERED WIRES & CABLES · VARNISHED CAMBRIC CABLES · PLASTIC INSULATED CABLES · NEOPRENE SHEATHED CABLES

Salem

VENTILATING HOOD

This is the new Trade-Wind Ventilating Hood that has captured the hood market. The Salem is finished in rich antique copper to match the latest style in ranges and is made of Trade-Wind's exclusive Duometl, a laminated sheet of solid copper and steel for beauty and permanence. The hood is available in five standard lengths. It can be used with any of the 3 powerful Trade-Wind Ventilators illustrated below.

MOST COMPLETE LINE OF HOODS AND VENTILATORS



3501 — Ventilator. 500 CFM. 2 inlets and filters. 4-speed switch.

2501 — Ventilator. 425 CFM. Filter available. 4-speed switch.

1501 — Ventilator. 300 CFM. Filter and 4-speed switch available.

SALEM HOOD — In antique copper to match latest range tops, 30", 36", 39", 42" and 48" lengths.

EXPANSION HOOD — Copper or stainless steel in 2 sizes which adjust from 30" to 42" and 42" to 54".

STATIONARY HOOD — Copper or stainless steel in 30", 36", 39", 42" and 48" lengths.

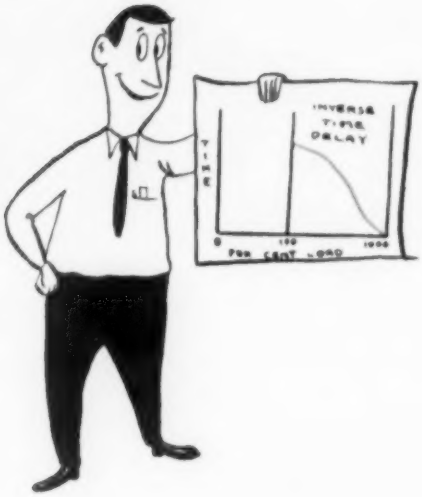
FOLD-UNDER HOOD — Stainless steel only. 39" and 42" lengths.

Trade-Wind Motorfans, Inc. 7755 PARAMOUNT BLVD., DEPT EW RIVERA, CALIFORNIA

ONLY HEINEMANN CIRCUIT BREAKERS give you all THREE

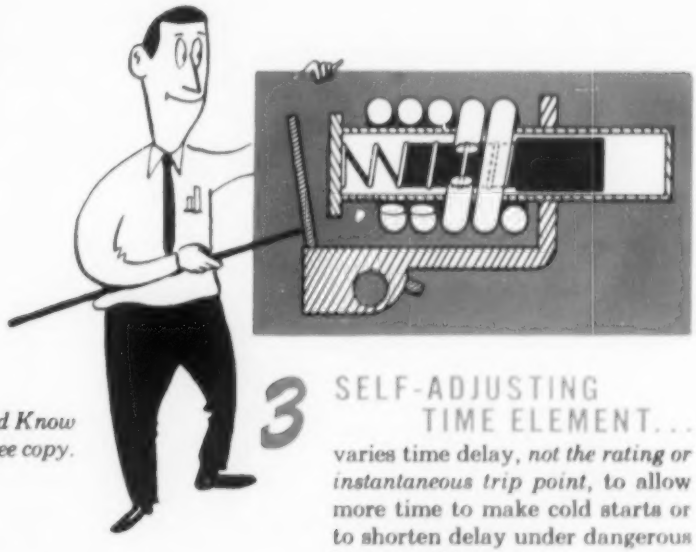
1 A DEFINITE RATING . . .

unaffected by temperature. A 20 ampere rating means 20 amperes of safe, usable capacity. There is no de-rating of Heinemann Circuit Breakers.



2 INVERSE TIME DELAY . . .

prevents nuisance power interruptions . . . permits starting inrush and harmless, temporary overloads. Gives maximum protection without inconvenience.



3 SELF-ADJUSTING TIME ELEMENT . . .

varies time delay, *not the rating or instantaneous trip point*, to allow more time to make cold starts or to shorten delay under dangerous heat conditions.

INFORMATIVE BOOKLET: *"What You Should Know About Circuit Breakers"... Send for your free copy.*

HEINEMANN *Circuit breakers*

HEINEMANN ELECTRIC COMPANY
152 PLUM STREET
TRENTON 2, N. J.

SCORES OF APPLIANCES available to today's homeowner make even 100-Amp service entrance questionable.

How long before you say, "100-Amp. service is obsolete?"

It may be sooner than you think!

More capacity is needed almost day by day. First it was 60-Amps. Now 100-Amps. And people in some areas are now talking about 150-, even 200-Amps. The flood of new appliances—clothes dryers, ranges, freezers today, central air conditioning and the heat pump tomorrow—is fast changing our ideas of what is adequate service.

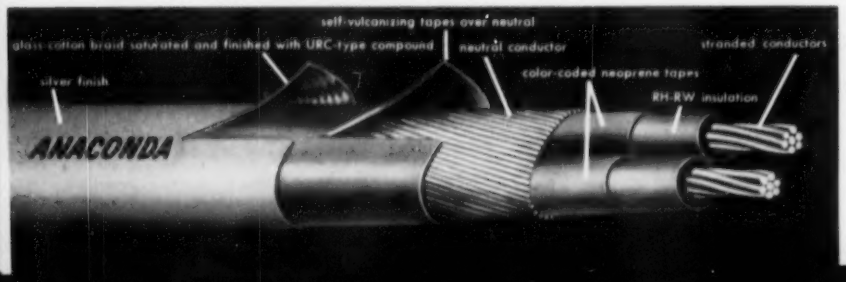
It's only good business to sell contractors on service cable with the capacity homeowners will need in the future: Anaconda Silvaline* Type SE Cable. **Contractors' preference!** Silvaline is the only service entrance cable with URC† saturant and finish. Cable will not festoon. Silver finish on Silvaline takes any type or color of house paint . . . won't bleed through, flake or peel.

Sell to Utilities for installation from pole to house to meter in continuous run.

Immediately available, copper or aluminum. Order today for quick delivery. And write for new folder on Silvaline Type SE Cable. Anaconda Wire & Cable Company, 25 Broadway, New York 4, N. Y.

*Reg. U. S. Pat. Off. †Utilities Research Commission

ASK THE MAN FROM ANACONDA® FOR SILVALINE SERVICE ENTRANCE CABLE



SILVALINE TYPE SE CABLES—100-AMP RATING OR MORE

Conductors	Insulation	Rating (in amps)
3/C #3 with #3 or #5 neutral	RH-RW 75°C	100
3/C #2 with #2 or #4 neutral	RH-RW 75°C	115
3/C #1 with #1 or #2 neutral	RH-RW 75°C	130
3/C #0 with #1 or #1 neutral	RH-RW 75°C	150

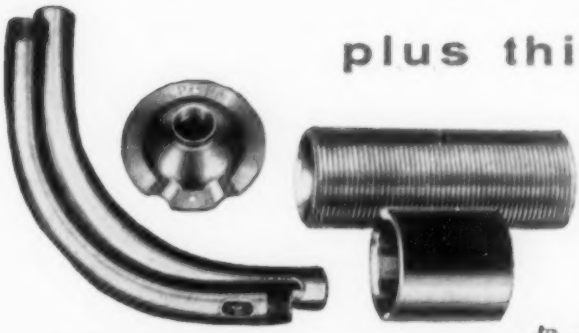
carefully threaded

NIPPLES

assure weatherproof joints

Your customers know U. L. approved Conduit of COLUMBUS nipples *lock out leaks*, assure tight, weather and corrosion-proof connections. Engineered to the highest standards, Conduit of COLUMBUS nipples are carefully threaded for correct alignment. Precision chamfering means smooth, easy starting. Rigid inspections assure constant, uniform quality. Conduit of COLUMBUS nipples are hot-dipped galvanized and lacquered. All sizes: ½" x close to 2" x 6" in protective, easy-to-store packages. Larger sizes 2½" to 6" available in all lengths.

plus this extra service



You can get speedy delivery of all Conduit of COLUMBUS fittings from any of the 10 conveniently located warehouses.

Look for the U. L. label when buying elbows and nipples.

SOLD ONLY THROUGH RECOGNIZED WHOLESALERS

Conduit of COLUMBUS

CONDUIT PIPE PRODUCTS CO., COLUMBUS, OHIO

PIPE COUPLINGS • PIPE NIPPLES • ELBOWS, RIGID & E.M.T.
RUNNING THREAD • GOOSENECKS • WALL PLATES

G-E Fluorescent Lamp Facts:

99 out of 100 General Electric fluorescent lamps deliver a full year of uniform light in single shift plants

G-E LAMPS GIVE YOU MORE FOR ALL YOUR LIGHTING DOLLARS

General Electric fluorescent lamps "should live so long"...and they do!

IT would be most unusual for you to buy a whole carton of 24 G-E 40-watt fluorescent lamps to keep a single socket supplied. If you should, however, based on the average service life of 3 years per lamp, you wouldn't need to buy another lamp for that socket for 72 years . . . until the year 2028!

HOW G-E LAMP UNIFORMITY AFFECTS LIFE—Long life is important, but also important is uniformity of life—the "spread" between the first and last burnouts in a group of lamps. After one year of service in single shift plants an average of 99 out of 100 General Electric 40-watt fluorescent will still be burning. That's 2500 hours of service. In double shift plants, 98 of 100 will be burning after a full year. General Electric lamps not only live up to their published rating of 7500 hours life but have virtually no early failures.

GENERAL ELECTRIC LAMPS SAVE YOU MONEY. Lack of early failures can help cut your lighting costs. For example, G-E lamp uniformity lets you set up and stick to a group relamping schedule, cutting maintenance costs. Fewer individual lamps to open replace.

In addition to uniform life, General Electric 40-watt fluorescent lamps on the average are 99.9% free from physical defects that could affect performance in service! And they are uniform in light output, less than 1% of all G-E 40-watt fluorescent lamps are as much as 5% below their published light output of 2500 lumens.

For more information on how you benefit from G-E fluorescent lamps write: General Electric Co., Large Lamp Dept., Nela Park, Cleveland 12, Ohio.

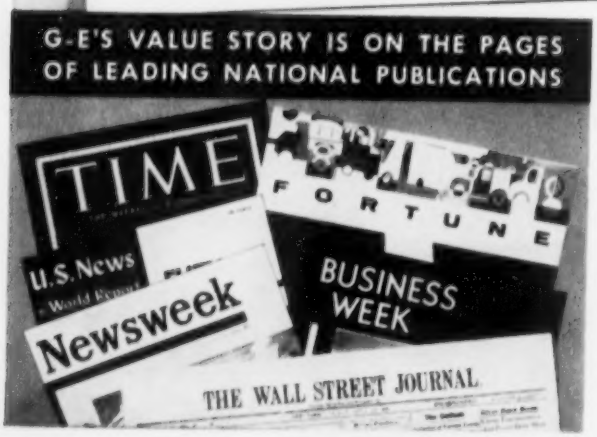
Progress Is Our Most Important Product

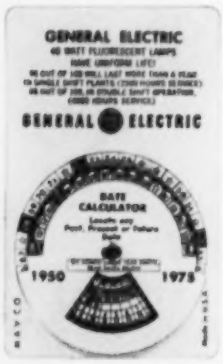
GENERAL ELECTRIC

INSTALL 100 GENERAL ELECTRIC 40-WATT FLUORESCENT LAMPS in any single shift plant under normal operating conditions. *After a full year (2500 hours of service) an average of 99 will still be burning!* After 2 years (4000 hours) 98 out of 100 will still be burning. Not only do G-E 40-watt fluorescent lamps live up to their published rating of 7500 hours life, but they have virtually no early failures!

CONSISTENT ADVERTISING OF FACTS LIKE THIS MAKES YOUR SELLING JOB EASIER, MORE PROFITABLE

General Electric has consistently and strongly advertised the money-saving benefits your customers get from G-E 40-watt fluorescent lamps—and this has helped create the present brand preference for General Electric. This fall, such magazines as Fortune, Time, Newsweek, U. S. News & World Report, Wall Street Journal and Business Week will display full page G-E ads like the one shown at left.





GET YOUR 25-YEAR CALENDAR TO DRAMATIZE UNIFORM LIFE OF G-E LAMPS

Ask your G-E salesman for your metal 25-year calendar that helps you get more orders by "bringing home" in an unusual manner the uniform life of General Electric fluorescents. General Electric Large Lamp Dept., Nela Park, Cleveland 12, Ohio.

Progress Is Our Most Important Product

GENERAL ELECTRIC

See how J-M DUTCH BRAND tells and sells your customers in your Prime Markets

Your customers are being introduced to a new, fact-packed sales booklet on Johns-Manville Dutch Brand's "BIG FOUR" electrical tapes through this ad, which is appearing in leading trade publications. This sales booklet is loaded with product information, ideas and applications. It dramatically illustrates the quality, features and versatility of Dutch Brand tapes. You'll find this booklet a valuable aid in clinching sales. Now's the time to get behind the BIG PUSH for the "BIG FOUR" . . . if you do not have your copy, send for it now!

and HONEYLITE — the all metal light diffusing acoustical honeycomb — made the change in record time! When the Pacific Telephone and Telegraph Company designed this important nerve center for the 1956 Republican Convention at San Francisco's Cow Palace, they had one big goal — to make the room as well-lit and whisper-quiet as possible. That's why they chose a HONEYLITE ceiling! ● *HONEYLITE's amazing efficiency and sound reducing properties transformed the South Barn of the Cow Palace into this restful room — a room in which scores of messengers and 60 telephone representatives handled more than 4,000 long distance telephone calls a day. And HONEYLITE's 45° shielding turned a room designed for livestock into a setting for pretty telephone girls. HONEYLITE's low weight (2 ounces per square foot) meant that only the simplest T-bar suspension system was needed. On-the-job cutting and fitting reduced the man-hours needed to install the contoured ceiling to a minimum.* ● *The full air circulation given by all-metal, UL approved HONEYLITE made sure the Bell Telephone Center was not only smoke-free, but cool and fun to work in.* ● *For price lists and detailed information see your dealer or write to Hexcel Products, Inc., 951-61st Street, Oakland 8, California.*

HONEYLITE®

LIGHT-DIFFUSING ALUMINUM HONEYCOMB

A development of HEXCEL PRODUCTS INC.

IT PAYS TO HAVE HUBBELL GOOD CONNECTIONS

Announcing

A revolutionary new Hubbell advance in wiring device design which provides the utmost in wiring security, safety and convenience.

New, Super

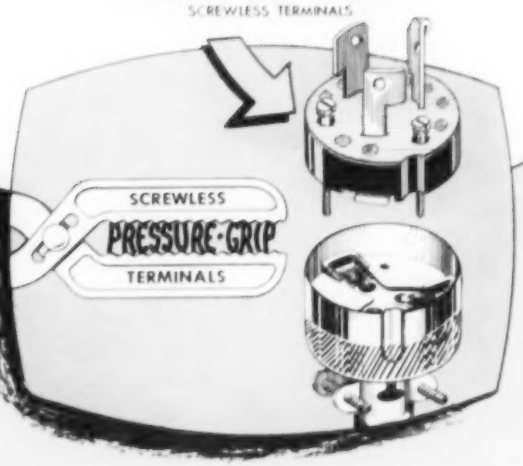
Twist-Lock

SERIES 3000

Featuring

PRESSURE-GRIP

SCREWLESS TERMINALS



IT PAYS TO HAVE HUBBELL GOOD CONNECTIONS

REVOLUTIONARY... NEW... SUPER

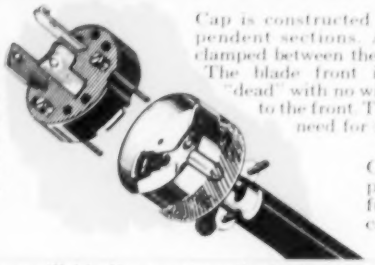
SERIES 3000

Twist-Lock ®

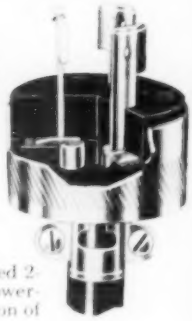
FEATURING

Screwless PRESSURE-GRIP Terminals with Dead Front

Wire ends simply press into their individual pockets and, with dead front in position, are securely locked in place. Wire strands can't contact one another or spread out and touch steel shell. There are no binding screws . . . no wire looping.



Cap is constructed in two independent sections. All wiring is clamped between the two sections. The blade front is completely "dead" with no wires extending to the front. This eliminates need for fibre disc.



Cut-away of assembled 2-piece cap showing powerful pressure grip action of contacts.

SUPER TWIST-LOCK answers the growing need on the part of electrical contractors, plant electricians and maintenance engineers for a locking connector that can be installed quickly with a minimum amount of work and effort yet with the positive assurance that the wiring will be absolutely *safe* and *secure*. Super Twist-Lock is vastly superior to competitive locking connectors both mechanically and electrically. The screwless terminals save valuable wiring time by eliminating troublesome wire bending and looping. Unlike the usual "wrap around" binding post method, Super Twist-Lock assures wiring uniformity and maximum terminal contact. The two-piece construction of the cap contains all the wires. The blade front is "dead" i.e. no wires extend to the front of the cap, thus there is no need for a fibre disc. This contributes to utmost wiring safety and security.

Super Twist-Lock is the most rugged unit of its type ever produced. It is slightly smaller in size and lighter in weight than existing units and consequently more compact. Rigid tests prove that it will withstand the roughest industrial service conditions.

INTERCHANGEABLE

Super Twist-Lock is interchangeable with other locking connectors of equal size and rating. Either the cap or the connector body can be used in conjunction with existing units. This is advantageous in plants where regular Hubbell Twist-Lock or other competitive lock type connectors are presently installed on machine tools or other equipment.

Now Available In All Three Sizes

2-WIRE 20 Amperes 250 Volts

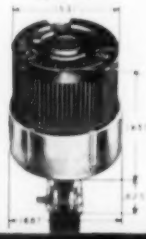
2-Wire Cap **Cat. No. 3221**

2-Wire Connector Body **Cat. No. 3223**

3-WIRE 20 Amperes 250 Volts (AC or DC) 10 Amperes 600 Volts (AC only)

3-Wire Cap **Cat. No. 3321**

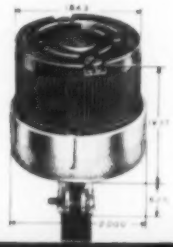
3-Wire Connector Body **Cat. No. 3323**



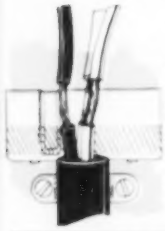
4-WIRE 20 Amperes 250 Volts (AC or DC) 10 Amperes 600 Volts (AC only)

4-Wire Cap **Cat. No. 3421**

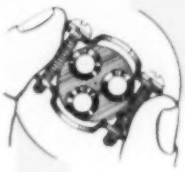
4-Wire Connector Body **Cat. No. 3423**



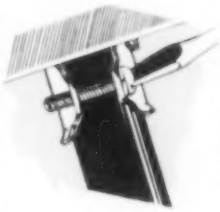
Cuts Wiring Time 1/3



1. Use knurled section on shell as a convenient strip gage. (Insertions of individual conductors can be simplified by leaving insulation on wires, thereby containing strands.)



2. Spread cord clamps and insert conductors into holes making sure green (ground) conductor enters the hole marked with the designation GR.



3. With the cord pressed in firmly, tighten the cord clamps so that the position of the individual conductors will be maintained throughout the wiring operation.

4. Before snipping wire, gage correct length by bending the conductor into its position in the pocket. Wire should reach back wall of pocket. Snip with pliers.

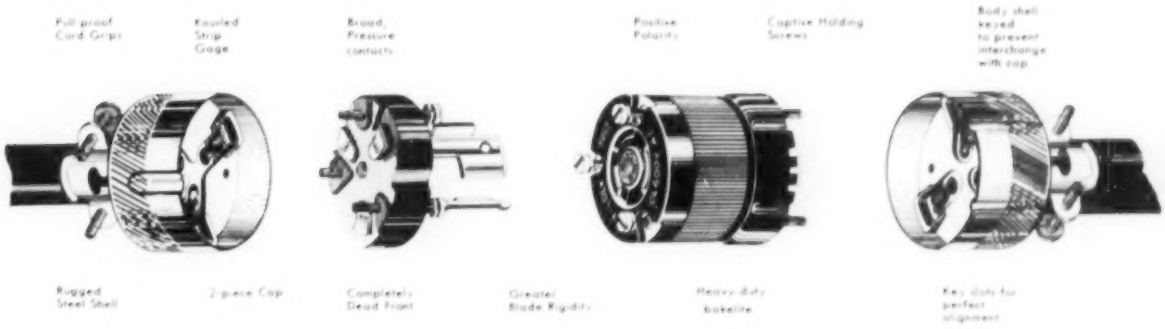
5. Bend each conductor outward into its individual pocket. Then press each firmly into position.

6. Insert "Bakelite Blade Front" into keyed shell and engage the two sections securely by tightening each screw alternately until all are firmly seated.

It's Rugged

withstands tumbling barrel torture test!

In order to test the ruggedness of this new unit, Hubbell engineers set up this tumbling barrel torture test. After ten minutes of tumbling barrel torture, Super Twist-Lock operated perfectly both mechanically and electrically. This is both the result of the small, light weight and compact design of the unit and the top quality materials and workmanship which go into its manufacture.



Harvey Hubbell, INC.

Bridgeport 2, Connecticut

Factory and Warehouse Locations Assure Nationwide Stock Availability

State and Bostwick Sts. Bridgeport 2, Conn. | 37 South Sangamon St. Chicago 7, Ill. | 103 North Santa Fe Ave. Los Angeles 13, Calif. | 1675 Hudson Ave. San Francisco, Calif. | 1111 Dragon St. Dallas 7, Texas

Hubbell Quality HEAVY DUTY WIRING DEVICES

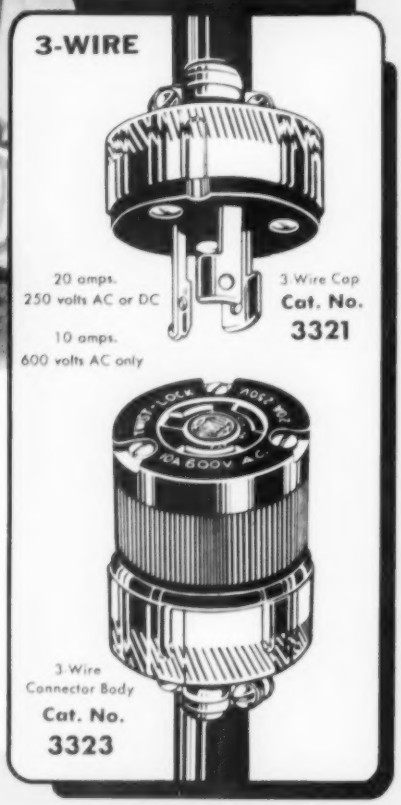
SEE IT NOW

At Your Nearest Electrical Distributor's Showroom

IT PAYS TO HAVE GOOD CONNECTIONS — HUBBELL

It's Easier, Safer to Wire

... Cuts Wiring Time 1/3!

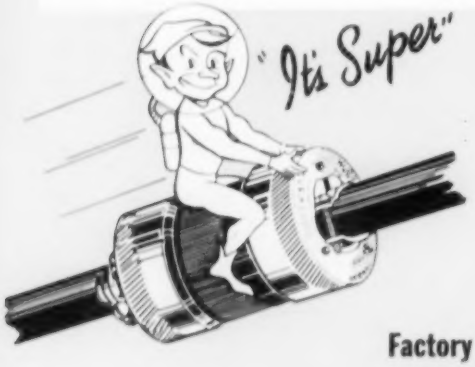


Looks pretty much like the regular Twist-Lock doesn't it . . . But see here — See that dead front? That's the big feature of this Super unit. All the wiring is *enclosed*. There aren't any exposed wires on the surface . . . no need for a fibre disc. The terminals (in both the cap and the connector body) are Pressure Gripped INSIDE. That's why this Super Twist-Lock is so safe and secure.

Is it easy to wire? . . . You bet! There aren't any terminal posts . . . no awkward wire bending or looping. You just press the wires into their individual pockets, screw the dead front in position and it's finished. Six easy steps cut your wiring time up to ⅓rd on any job. That's money in your pocket any way you look at it.

Yes, it's interchangeable with regular Twist-Lock. Use them along with any existing installation. No trouble at all.

Sure, they're available. We have them in stock right now!



Sold only through Authorized Distributors

Harvey Hubbell, INC.

Main Office and Factory BRIDGEPORT, CONN.

Factory and Warehouse Locations Assure Nationwide Stock Availability

State and Bostwick Sts. Bridgeport 2, Conn. | 37 South Sangamon St. Chicago 7, Ill. | 103 North Santa Fe Ave. Los Angeles 13, Calif. | 1675 Hudson Ave. San Francisco, Calif. | 1111 Dragon St. Dallas 7, Texas

Fired Up

Sales of electrical wholesalers are setting a red-hot pace. In June they burned up all previous records, reaching 182 (1947-49=100) on ELECTRICAL WHOLESALING's Business Index (*page 94*). Through June, according to the Bureau of the Census, sales of "electric equipment, supplies wholesalers" sprinted 22 per cent ahead of the first six months of 1955. And this gain comes on top of a 13 per cent increase in 1955 over 1954. If 1956's blistering six-month dash doesn't break stride through December—and there is little likelihood that it will—then electric equipment, supplies wholesalers will have increased their sales by one-third in two years.

This is a rip-roaring rate of growth, excelled only by the immediate post-World War II years and 1950. Then distributors' dollar volume—for equipment, supplies, appliances, radio and TV—shot up at an even faster rate: 75 per cent in 1946, 75 per cent in 1947, 33 per cent in 1950. The reasons, of course, were inflation and the pent-up demand for all kinds of electrical products, particularly consumer goods.

Now sales of equipment and supplies seem to be advancing at a faster rate than appliances. This is implicit in sales figures for another Bureau of the Census group, "electrical appliances, TV and radio sets and parts, and electronic parts, equipment distributors." Sales of this catch-all classification rose 11 per cent in 1955, but are only 7 per cent ahead through June of this year.

How much of these recent sales gains are simply reflections of price increases is a moot question. Certainly, a Coney Island mirror is involved. Inflation has puffed up the prices of electric equipment and supplies in the last year on a high, wide and not exactly handsome scale. A glance down the columns of EW's Wholesale Price Index (*page 96*) reveals this bulge product by product. An averaging of the per cent changes in the price relatives for the first 44 commodities (a procedure that would make any self-respecting statistician wince) rounds out to a 9 per cent increase from August 1955 to August 1956.

Such an "average" is open to question. For one thing, it's unweighted. And it doesn't take in all types of products—conduit, fittings and boxes, for example—that the electrical wholesaler handles. But educated guesses from the field put the inflation component of dollar volume for the last 12 months at somewhere between 7 and 10 per cent. So perhaps our 9 per cent is a fairly accurate gauge of what has taken place in the market.

A subtraction on this order takes some of the steam out of recent spectacular sales gains. But not enough to offset the fact that electrical wholesalers are a very much alive and growing(or kicking, as some would say, with double meaning in their minds) branch of a growth industry. The wholesaler, referred to recently as "the sick man of the industry," couldn't be in better health. His profits may not be what he thinks they should be. And he may have become disenchanted with dollar volume as a measure of business progress. But if he's average, his business is booming like it has never boomed before—and he's enjoying it.

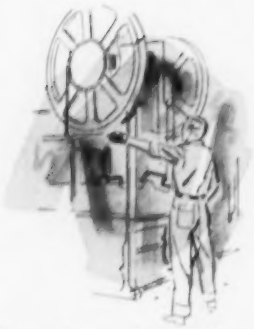
In fact, things are so fired up that there might be danger of the heat setting off a real fire. But that's another story (*page 64*).

George Langenmuller

EDITOR

Power for lighting circuits

Power for small and portable tools

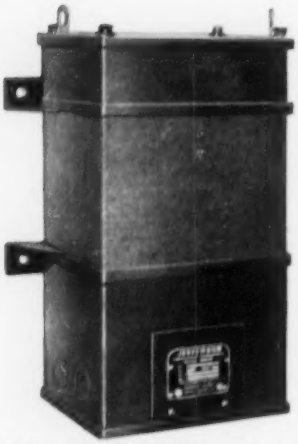


Power for machine tool controls

JEFFERSON

Power Circuit

TRANSFORMERS



Jefferson 1½ KVA through 15 KVA Power Circuit Transformers

Jefferson 50 VA to 1 KVA Power Circuit Transformers

- A complete line of superior quality Power Circuit transformers from 50 VA through 50 KVA—600 Volt Primary, 120/240 Secondary: 480/240 Volt Primary, 120/240 Volt Secondary.
- 1 KVA through 50 KVA dry type transformers all incorporate Class B insulation and finest quality grain-oriented silicon steel laminations.
- New small size allows better use of space in the factory or in storage. New light weight means easier handling, easier installation. Mounting brackets for 15 KVA and smaller sizes are built in for permanent, safe installations.
- Auxiliary equipment includes built-in circuit breakers, off-on switches and standard receptacles.
- The leading distributors in your area carry adequate stocks to quickly fill your needs. We will furnish their names upon request.

Bulletin No. P561-16 illustrates the complete Jefferson line. Catalog numbers, wiring diagrams included. Write for your copy now.

Jefferson Electric Company

BELLWOOD, ILLINOIS

ELECTRICAL WHOLESALING
OCTOBER · 1956

**An ad exec catching the 8:02 to Grand Central?
No, wholesaler's salesman Joe Troughton making his daily calls . . .**

Selling Big-Time Contractors

By Robert S. Bush

JOE TROUGHTON has been with Rumsey Electric Co., Philadelphia, Pa., since 1935. For the past 18 years, he has been an outside salesman.

As a salesman, he is unusual in two ways: First, he concentrates on selling the bigger electrical contractors. Second, he makes his daily rounds via the subway system.

Because most of his customers are located in the central business district of Philadelphia, Troughton finds it easier—and faster—to use the subway. He says this enables him to either call on more customers in one day or spend extra time with those who need special assistance.

The salesman—who concentrates on 20 accounts—believes the theory behind successful selling is persistence. He explains that whenever a customer formerly turned him down for an order, he would not be discouraged, but would continually return to see the prospect.

"Those prospects are now my customers," Troughton says.

To see just how Troughton uses his six-point program in selling the big-time contractors, turn the page.

What Goes Into Troughton's Program

1. He has small number of big customers

Although his customers are big contractors, Troughton concentrates on a small number to give them all good service.

"You have to know each customer individually," he says, "in order to know the needs of each. In fact, it's necessary to know as much about the contractor's business as he knows himself."

Troughton says that by establishing a closer relationship with his customers, he is better able to know their abilities and limitations, and can assist them more readily.

Rumsey's salesman works entirely with industrial and commercial electrical contractors who specialize in bidding and working on large jobs.

As an aid to them, he often visits engineers and architects. This is in an effort to obtain interpretations on various projects, which can be passed on to his customers.

2. He spends much time taking off from blueprints

In preparing information about a project in which a customer might be interested, Troughton spends much of his time taking off from blueprints.

He finds that usually, a contractor will let him know when a project is being planned. After he receives this information, the salesman often visits the architect or builder to see if the materials stocked at Rumsey are specified.

Sometimes, in order to give a contractor-friend the opportunity to bid, Troughton seeks and gets a substitution of lines carried by Rumsey and used by the contractor.

Troughton believes he can give better service to his contractor-customer by quoting on a job fast and not waiting until it is awarded. Often, he spends an entire morning or afternoon in the office of a builder going over blueprints and getting all the specific information he needs—for contractors.

3. He works closely with firm's technical experts

Sometimes, Troughton calls in one of Rumsey's seven engineering specialists to assist him in taking off from blueprints.

On a recent project involving the construction of a $125,000 office and warehouse of Kraft's Food Co. in Philadelphia, Troughton called in Russ Keeler, an electrical engineer who specializes in motor control equipment. Because the project required the installation of refrigeration and air conditioning equipment, Keeler assisted in taking off specifications from blueprints for motor controls.

In addition to this, Rumsey's electrical engineers assist contractors with technical problems. All specialists work closely with the utility, and pass on information to engineers, builders and contractors about utility requirements. This service is provided free by Rumsey and provides good will among the firm's customers.

For Selling Big-Time Contractors?

4. On pricing, he gets help from his A&S manager

The inside man is important to Troughton's selling procedure. After specifications are taken from blueprints, they are turned over to Ted Lauer, apparatus and supply manager.

Lauer then breaks the specifications down into various departments, where price is estimated. The figures are then included in one quotation sheet for the entire project.

In addition to quoting prices on specifications, Lauer also works closely with Troughton—and other outside men—in giving them specific information about supplies which can be passed on to the contractor-customer.

"The inside men are very helpful," Troughton says. "They know their products, and do most of the pricing for the outside men."

He adds that specifications are adhered to closely and that Rumsey is able to submit quotations on about 99 per cent of all specifications.

5. When a contractor calls—he's ready

After the quotation sheet for a job has been completed, one half of Troughton's work on a particular project is finished.

"We don't try to play one customer against the other," the salesman explains. "Everyone is on the same footing. All we have to sell is service. Our competition has everything else we have. In some cases, they might even have better prices. But we don't endorse price-cutting. We believe every business must have a fair profit."

Troughton says that when the quotation for a project is prepared, he waits for a contractor to ask for it.

"We never ask a customer if he wants us to figure a job," he says. "The idea is for him to get in touch with us—and he usually does.

"We know that if we wait for the contractor to contact us, he is interested in getting the bid, and probably will give us the order."

6. Then, he submits his quotation

After he is contacted by his accounts, Troughton submits his quotation. If one of them gets the job and gives the order to Rumsey, the salesman sees that his customer receives all the service available.

He makes sure the contractor gets the proper materials at the proper time and with the least amount of trouble. By providing services, Troughton says that customers now are conscious of Rumsey's efforts in making customers happy.

In addition to the service they provide, the salesman says that an adequate stock is always available, and that some slow-moving items are stocked only for customers who need them.

"We are available when our customers need us," Troughton says. "As long as you take care of a contractor, he learns to depend on you—and you can depend on his business."

Brings you up-to-date on what you can sell to . . .

The Petroleum Market

- More cars and jets contribute to the ever-increasing growth of the petroleum industry. Refineries are the basic unit.
- Motors, controls, explosion-proof—big items for the industry, ranging from wells to pipelines and service stations.
- Big buying often depends on the home office. For daily supplies sales, see the p.a. or maintenance department.

Refineries use bulk of industry's power

CONCLUSION of the oil industry's best year in 1955 has brought no end to its growth. 1956 is running even better, and the outlook is for a 48 per cent increase in product demand by 1965. The main products involved are oil, gasoline, distillate, kerosene, LP-gas and lubricants. This growth directly affects all divisions of the industry: drilling and production (the fields), refining, transportation (pipelines, etc.) and marketing (from bulk to retail stations).

Approximately two-thirds of the industry's electrical power use is by the refineries—350-plus of them. Electrical equipment outlay is estimated, apart from labor, as $30 per barrel/daily production in new plants where power is purchased from the local utility. Added to this is roughly $2 per year per b/d for supplies and maintenance. Multiply these estimates by present refinery capacity (7.2 m. b/d) and by the 1965 projection (10.7 m. b/d), and there's a picture of big electrical sales.

On the refining end, there are an additional 500-plus natural gasoline plants, and over 450 lube and grease factories. There's also 170,000-plus miles of pipeline, 30,000 bulk stations (located, unlike refineries, in nearly every market area in the country), and nearly 400,000 primary and secondary service stations.

Oil refineries themselves can be broken down into three classes: (1) skimming plants which recover about 25 per cent of gasoline content from oil by low-pressure temperature distillation; (2) skimming and cracking refineries which, moving a step further, double the recovery rate by additional heat and pressure methods; and (3) "complete refineries," which add to the above rectification and refrigeration processes to recover usable oil from the residue.

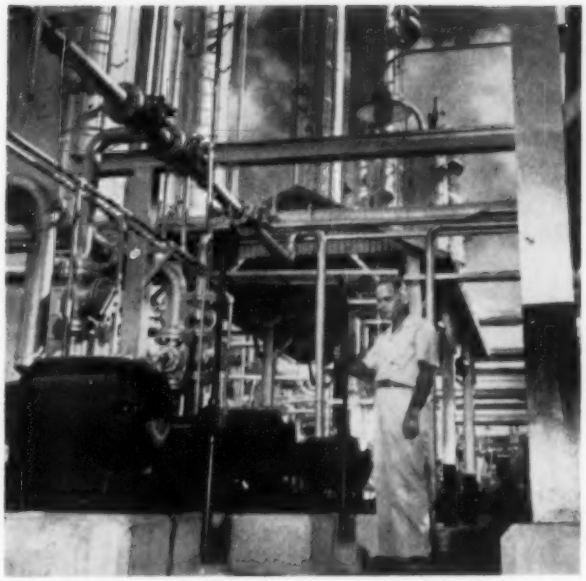
Big problem: direct sales to refineries

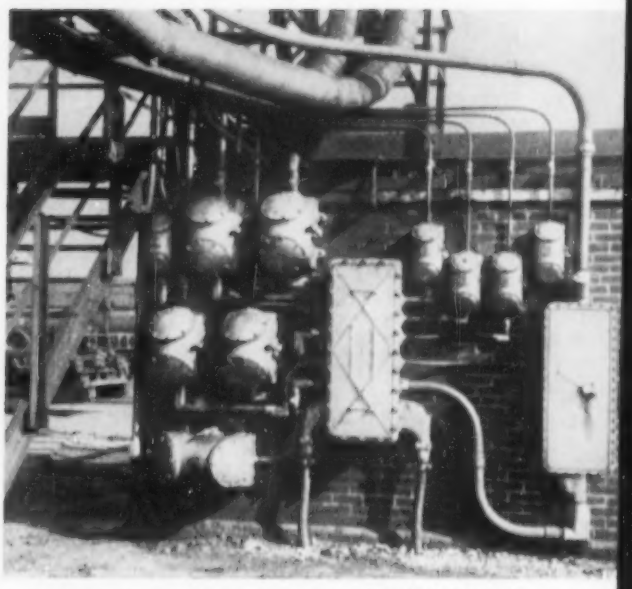
THE OIL INDUSTRY is among the best markets for the electrical wholesaler's salesman. This is especially true of refineries—with the qualifications that much buying (for new plant equipment, in particular) is direct and that plants are not evenly spread around the country. But these roadblocks are effectively made up by the market potential of pipeline, bulk and retail stations.

In refineries—whether cracking units, reforming or polymerization types, gas plants or others—electrical supplies and equipment run well over 4 per cent of the total outlay for new plant.

The bulk of this refinery expenditure is for motors and turbines: 30 per cent. Switchgear runs 20 per cent, while the other categories—controllers, explosion-proof castings, plant and unit distribution systems—run about 10 per cent each.

The purchasing department, in day-to-day supplies buying, is the main factor; operating and maintenance departments also have a strong voice in spending decisions. On larger outlays, handling of requisitions depends on whether the company is centralized or decentralized. The design engineers have a big voice on basic equipment changes.





Petroleum refineries: One key is explosion-proof equipment —*Petroleum Processing*

Big refinery uses 10,000-plus motors

MOTORS AND CONTROLS are the big electrical supplies item in refineries, powering everything from material handling to disintegration, mixing, separation and air conditioning. It's estimated that—in a large, complete refinery—there might be found 3,000 5-hp motors, plus 2,500 7½-25-hp, 4,500 25-100-hp, and 60 125-1,250-hp units. In straight refining operations, the requirements are considerably less.

Pumping is a basic motor need. This includes pumping water through condensors and spray ponds, oil and other products through charging pumps, and transfer and treating pumps. Motors are also used for air and ammonia compressors, conveyors, welding and in machine shops.

Totally-enclosed, fan-cooled, explosion-proof units are most common in ratings up to 400-hp, with base-ventilated or inert gas-filled types adopted in larger sizes. Over 90 per cent of refinery motors are squirrel-cage induction types, though synchronous motors are being used more to drive large pumps and compressors. In case of failure, pumps are repaired and are seldom replaced.

Motor controls in common use include oil-immersed, single-speed magnetic starters; oil-blast, full-voltage starters; and "limitamp" controllers.

Hazardous plants —'by definition'

LIKE CHEMICAL PLANTS, petroleum refineries are—almost by definition—hazardous locations. While there is an effort to segregate the more from the less hazardous locations within given plants, the definition still holds.

Electrical equipment used in such locations must be approved for use under prevailing conditions, as set forth in the National Electrical Code. This includes locations where explosive conditions are normally present (Class 1, Division 1,) or are there because of accident or operating failure (Class 1, Division 2). To the salesman, this means specially-constructed conduit and fittings, switchgear, motors and controls, and lighting.

There's a tendency now toward more outdoor installations of substations, switchgear and other equipment, partly to reduce hazard and partly to reduce expense. This is true at bulk stations as well, utilizing MI (mineral-insulated, metal-sheathed) cable for control and fixture circuits.

Add electronics, lighting, signals

ELECTRONIC controls are slowly replacing pneumatically-operated types in refinery operations. At present, the bulk of this equipment is bought direct.

Lighting units in refineries must be explosion-proof. Illumination requirements are high in modern plants, and there's continuing maintenance.

Signals of all types are standard equipment in refineries. In addition to intercoms and call systems, there's a need for fire alarms, atmosphere analyzers, detectors to remove foreign bodies from process materials, and other systems.

NEXT MONTH: The Food-Canning Industry

Distributor Christie, builder Zepkin and the first of 1,000 Stoneybrook electric homes.

HOW CENTRALITE SUPPLY IS . . .

Selling Electric Living In a

FOR MANY electrical distributors, the current array of industry-wide residential electrical selling programs holds future—or near future—promise.

But for Centralite Supply Co., that promise is paying off right now to the tune of $2,225,000 in sales to one builder—and almost all at book price, says the wholesaling firm's president, J. Fred Christie.

Since 1950, Christie has been selling electric living in a big way in the Newport News area. At the same time he has adhered strictly to the contractor service-protection policy on which he founded his firm (EW—Aug. '53, p. 58).

• **A Long Row**—Reaching builders hasn't been easy, he says. It's a long term educational proposition. Take the builder of Stoneybrook Estates, buyer of that $2 million-plus worth of electrical living equipment. Five years ago, when Christie first approached the developer, this company was putting up three to four hundred homes a year.

Christie began by selling Eugene Zepkin, (*picture above*), general manager in charge of development. He sold Centralite and its services gradually—but always with an eye to helping build his contractor customers' business and their electrical share of the home building dollar.

• **"Electrical Advisers"**—At that time, says Zepkin, "Centralite was doing a fine job of advising us on all the new electrical items coming into the field—electrical furnishings that we could

By George D. Farley

build into our home packages to make them more attractive to potential buyers in what was becoming an increasingly competitive market." It paid off. The builder's business grew and so did the wholesaler's sales.

• **The Big Job**—Then came the big break. Stoneybrook Estates' vice president and general manager, H. R. Taylor, disclosed plans for a 1,000-unit development in Upper Warwick, Va. It was to be a completely self-sufficient community designed exclusively along modern living lines, to be constructed by Bilt-Rite and Capa Builders of Newport News.

On Zepkin's suggestion, Christie was given *carte blanche* to plan the electrical segment of the modern living project. He worked up a complete package of up-to-date electrical furnishings with the emphasis on quality.

Though the home prices varied from $13,600 to $50,000, each had a comprehensive basic list of items tailored to make it as electrically attractive as possible (*see opposite page*). Lighting, alone, averaged $450 to $1,000-plus—depending on the size of the home. Every home in the project was centrally air conditioned—the size of unit again depending on the size area to be cooled.

• **150-amp Service**—Though the nation-wide push now is for 100-amp service, Christie saw to it that each home had at least 150-amps—those priced above $30,000 having 200-amps with 36-circuit breaker panels.

These and many other electrical living features (see following pages) were incorporated in the project. "And" says Christie, ". . . the beauty part of it was that price was put back in its proper place. The builder—sold in the past on quality—wanted the best and got it.

"There's no arguing with home-

Every Stoneybrook home (price range: $13,600-$50,000) has:

Bathroom Heaters
Multi-Outlet Strip Molding
Triplex Receptacles and Plates
Built-In Mixer
Low Voltage Relay Switches
Central Air Conditioning
Electronic Heating, Cooling Control
Built-In Music, Intercom System
Dimming Equipment
Fire Alarm System
Recessed Chime (8 notes)
Electronic Eye Yard Light
Yard Lights
Spot Flood Lights (outside)
Ventilating Fans
Push Button Exhaust Hood
Electric Cook Top
Built-In Oven
Kitchen Lighting (recessed)
Recess Spots in Kitchen
Surface Mounted Fixtures
Recess Fixtures in House other than kitchen
Outside Bracket Lights

Big Way

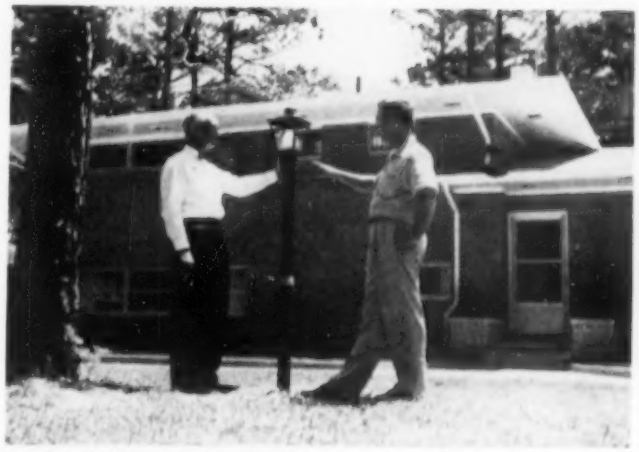
buyers to spend a little more for adequate electrical service they need after moving in. We don't have to contend with dwindling fixture allowances in our showrooms. The contractor—Pat's Electric Co.—doesn't have to knock himself out trying to sell what he's not trained to merchandise. And his only problem is completing boosted installation work in three days on each of these electric living homes when it used to take a day ordinarily. All of us should have that kind of headache," he adds with a smile.

• **A Big Start**—How about the future? Is this kind of sale a flash in the pan—one in a thousand? "No, it's only the beginning," declares Centralite's president. "This sale wasn't luck. It—and others now crystallizing—were planned from our first contact with many builders since 1950.

"We've learned a lot about the home market through this daily contact and we've kept tabs on a definite trend to incorporate more practical electrical furnishings—not pretty gadgets—in today's homes. These new industry promotions will help us greatly in selling tomorrow's electrical living market—today."

HERE'S WHAT'S OUTSIDE:

CENTRAL AIR CONDITIONING system in each house is fed by outside compressor located to rear of home. Here, Christie and Zepkin discuss 5-ton unit in model home. 2-5 ton units are used.



ELECTRONIC EYE YARD LIGHT encased in weatherproof lantern post furnishes automatic illumination for house front area at dusk. Inside hall light and one table light also light then on the same circuit.

YARD LIGHTS, being checked here by Christie and Zepkin, are located at three spots in circular driveway. They are controlled by a time switch adjustable as time of dusk changes daily, aid in dressing up home front.

To see what's inside homes, turn page.

Some Electric Living Features Sold

In the Service Area . . .

200-AMP SERVICE in model home is capable of handling any combination of power pulls, allows plus capacity for future. Minimum service in 1,000-home project is 150-amps.

CIRCUIT BREAKER for 200-amp service has 36 circuits, is big selling point for women, says Zepkin. He is considering incorporating breakers in all future home projects.

In the Playroom Section . . .

FIVE FEATURES are seen as (1) Zepkin tries dimmer on (2) recessed fixture. Above hand is (3) 8-note chime. Below it, (4) taplight switch; (5) (r.) heat, cool control.

MUSIC-INTERCOM SYSTEM—through intricate, extensive wiring—permits housewife to talk from anywhere in home with salesmen, visitors at door, and to other stations.

By Centralite

In the Living Area . . .

ELECTRIC KITCHEN has built-in, push button exhaust hood, cook top, ventilating fans, recessed louvered fluorescents and spots, is real showcase for selling buyers' wives.

MODERN LIGHTING fixtures were carefully selected when Christie sold the homes' electrical package. Basic lighting (from $450 to $1,000) comes with every house.

In the Bathroom . . .

WALL ELECTRIC HEAT unit in bathroom is standard in each home. Christie is expanding electric heat sales, will feature it in a model to tie in with industry promotions.

FIRE ALARM SYSTEM is another strong selling point to potential buyers. Decorative control unit is above staircase between levels of home.

MULTI-OUTLET STRIP MOLDING is used in living-, dining- and bed-rooms, provides any number of mobile receptacles for easy living.

Are YOU Ready for Disaster?

It could happen to YOU, as Poll and Farrell-Argast discovered (below). For one, it was fire. For the other, escaping steam, with inadequate insurance coverage. Here are reports on how these firms faced up to disaster—and on what they learned that might help YOU. This EW report adds another dimension to last year's "Flood, Mud and Your Business" (Oct. '55, p. 67), which showed how distributors dealt with Hurricane Diane.

1. "We Came Out OK . . ."

". . . but we can't say we were ready for the fire." That's how the three partners in H. Poll Electric Co. describe the $130,000 blaze that struck their Toledo plant last December. Three feet of water in the basement. Debris everywhere. Records destroyed. But the partners didn't give a thought to quitting. With the help of employees, manufacturers and customers, they snapped back. Two days' service was lost—but no business. For how they did it and what they learned, turn page.

---

2. "We Learned Our Lesson . . ."

". . . but we learned it the hard way," explains Dick McNamara, assistant treasurer of Farrell-Argast Electric Co., Indianapolis. He says that if steam from a broken gasket in a basement pipe hadn't been discovered by Miss Mary Manley, a bookkeeper, most of the stock would have been a complete loss. About $400 worth of motor control equipment was damaged, but insurance didn't cover the loss. For their ideas of how to be covered by such damage, see page 69.

◀ **WATER**—frozen and liquid—did this damage during the fire at Toledo's Poll Electric last December. Total damage was $130,000, but only two days' service was out. The temperature that morning: 11 degrees. (Toledo Blade)

Downtown Fire
Damage $70,000
H. Poll Electric Co.
Building Burns

How Did Poll Electric

IN REMODELLED OFFICE, partners Ralph Valentine (left) and Lon Poll check over fire costs. (Absent: partner Rich Poll.) First-floor area was rebuilt after fire, using partitions and metal furniture.

By Durward Humes

AT 2 A.M. last December 15, a Toledo police cruiser saw smoke coming from the H. Poll Electric Co. building. The fire department was called immediately. The fire, under control within two hours, was completely out by 8 a.m.

The day was spent assessing the damage and in organizing cleanup operations. Though the flames had hardly touched the building facade, damage was first estimated at $70,000 (*see above*). This figure was later upped to $130,000, breaking down to $40,000 building damage and $90,000 to warehouse goods.

December 16: The firm was offered the temporary use of two nearby buildings. Poll Electric's partners—Alonzo and Richard Poll, and Ralph Valentine—gratefully accepted.

December 17: Enough merchandise had been recovered and shipped in on an emergency basis to enable the firm to resume operations.

December 24: Business continued. As this was the Saturday before Christmas, the partners decided that its annual open house must go on. Turning disaster into an asset of sorts, a tour of the fire-damaged building was the highlight of the open house. ("A perfect opportunity to show customers and suppliers that we were far from licked," says Ralph Valentine.)

February 7: Poll Electric moved back into its old quarters, now completely repaired. Only two days' service had been lost, and billings during this period stayed at their normal pace—a pleasant surprise to the harried and hard-working partners.

How was this "comeback" achieved? What were the problems—and how were they licked? What help did Poll Electric get from suppliers and customers? That story is told in detail below.

"We feel that any wholesaler might wake up some morning to this sort of disaster," Richard Poll says. "Perhaps our story will be of value in telling others what to do and what to avoid. We learned plenty."

The Fire Itself

Rich and Lon Poll are "fire pikers." They hang around the local fire houses and follow blazes, usually in person, with great interest. It is their hobby, in a sense—but one which they prefer to study at a distance.

Says Lon Poll of the fire at his firm (at which he arrived "a little late"): "It's *almost* enough to make you give up chasing fires."

It took six hours to extinguish the fire. While flames rose 30 feet above the building, all that was visible at ground-floor level was thick smoke. In addition to doubt among the firefighters as to the center of the fire, the attack on the blaze was complicated by high winds (40 miles per hour) and low temperatures (11 degrees).

Once the firemen were finished, the Poll Electric partners turned from helplessness to realization of the problems they faced in getting back into business. The immediate headache was water on the second and first floors (12"), and in the basement (36"). Draining and pumping out this water took a good part of the day.

The next step was to get temporary power, since water from firemen's hoses had blown the main power panel. A contractor-customer remedied this by mid-afternoon.

Meanwhile, the partners put employees (including salesmen, who were called off the road) to work as cleanup crews. This work had to be done carefully, since all ashes and damaged goods had to be examined by the insurance people. In charge of this was the city's Fire Prevention Bureau. Valentine worked with the FPB man for two solid days, sifting ashes and examining the damaged areas.

Once the aisles were clear and the damage was known, Poll Electric shifted its effort. A general contractor was hired to take over the bulk of the cleanup, with help from some employees and from four men hired by the unemployment office.

The cause of the fire has never been officially determined. Personal opinions are many, but these lack proof. It is known, however, that the electrical system was not responsible.

React To This Disaster Headline?

All wiring was conduit-enclosed, and had been city-approved when it was installed ten years ago. The only blown fuses on the system were from frozen pipes.

The Next Days

Getting back into operation, if only on a temporary basis, was the next goal. One building which had been offered for temporary use was set up as a warehouse. Goods undamaged by the fire were moved in, and supplier's hurry-up shipments were unloaded there. Two days after the fire, Poll Electric was selling supplies again.

The second temporary building was turned into an office, with the use of rented furniture. Office personnel moved in there the day after the fire, happy with temporary but convenient (and heated) facilities.

A mimeographed letter was quickly sent to all suppliers, making official what was in most cases already known through agent and representative contacts. The letter said Poll Electric was making every effort to stay in business, and asked for duplicate billings for November plus new catalogs and price sheets. Included with many letters were orders for new basic stock.

A similar letter, stressing the firm's temporary addresses, was sent to all customers.

In the damaged building, specific inventory cleanup work was going on. The men worked in crews, with one of the partners in charge at all times.

Much of the stock was moved three times. Damaged stock was moved out of the debris to a dry spot. It was sorted there into good items, questionable ones or junk. Then the good items went to the temporary warehouse, and the other piles to a working area for a decision on what would finally be done with them.

The insurance adjuster, working closely with the partners and the cleanup crews, was finished in ten days. The insurance company decided early to pay outright for all damaged goods rather than take them over for salvage. This gave Poll Electric a free hand, once the adjuster was done.

The Next Weeks

Once the temporary operation was underway, the longer pull took on the appearance of a siege. The worst was over; now it was just plain hard work.

One big problem, a worry from the beginning, now took precedence. All records were in the office at the time of the fire, and all went up in smoke. All, that is, except the accounts payable and receivable ledgers and December invoices. They were in the office safe and were unhurt by fire or water.

All papers prior to December 1 were gone. The main worry, naturally, was back orders.

"One of the first things we did," Ralph Valentine says, "was to call all our customers about their own back orders. Most of our accounts are industrials, and they had their records handy. After we got through, I don't think we lost a single back order."

Poll Electric's final major step during this interval was to contract out the repair job on the main building. Four general contractors took a look at the job; two of them estimated it. The outfit which got the job did so because, in Lon Poll's words, "he promised to do it in a hurry."

And he did. On February 7, less that two months after the blaze, Poll Electric moved back in.

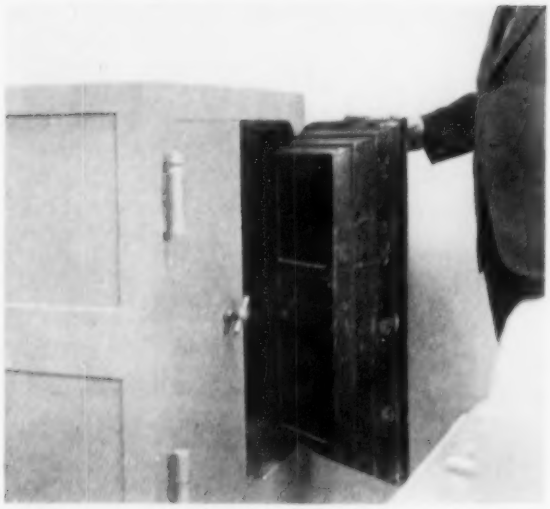
The biggest single expense, the partners say, was labor: over $5,000. Sales, with help from customers and manufacturers, stayed at their normal level; service difficulties were understood all around. As for the junk, the firm sold the bulk of it for a few hun-

From Worthless Junk . . .

THIRD-FLOOR housed junk for months after fire. Safety switch held by Ralph Valentine was damaged by smoke. Firm figured such goods not worth repairing, sold them as junk.

To Salvageable Supplies

FIRST-FLOOR conduit shed is scene of final cleanup work. William Brown uses solution to remove carbon from group of fittings. No reclaimed goods are sold as new.



THIS SAFE protected accounts ledgers and month's invoices. Other Poll Electric records were destroyed. Now all records are stored in fireproof equipment.

STEEL SHELVING has replaced wooden units in Poll Electric's warehouse. The partners think steel better withstands fire and water. Wide aisles are also fire protection.

dred dollars; much material was reclaimed and sold as such.

What They Learned

No firm, as Poll Electric's partners point out, is ever "well-prepared" for this type of disaster. They weren't either—but they came out well, to their surprise.

Nevertheless, they learned some hard lessons. Here is how they rate them:

- Insurance coverage was reasonably complete. Coverage on the building neared full value; the same would have held on the inventory except for heavy pre-Christmas stocking.
- Records must be stored in fireproof equipment. This was the biggest lesson—because it was the biggest headache. Now all records are properly stored, and duplicate inventory records are kept at the auditor's office.
- Steel shelving has replaced, wherever possible, the old wooden units. The partners feel that steel stands up better to fire and water.
- Water damage is nearly as much of a problem as is fire. Smoke can also do irreparable damage.
- Glass frontage is fine—until fire strikes. The firm has replaced the old glass, which melted early, with glass blocks.
- "Loose stocking" cut down the fire damage. Jammed shelves and aisles would have increased damage, hindered cleanup even more. The fact that the elevator shaft was closed off also reduced damage.
- Power is the first necessity upon reentering after a fire. You have to have lights, outlets for power tools and pumps.
- Squads, under management leadership, must be organized early. They must have specific jobs, on a first-things-first basis.

To Poll Electric's partners, the vital factors in their comeback were the help they got and the fact that they owned the business. "If we didn't own it," Valentine says candidly, "we wouldn't have given the long hours of work and planning that were necessary. We could easily have gone under. It could have been a personal as well as a business disaster."

What Poll Electric's Suppliers Did

Help from manufacturers' representatives and their plants was, to Poll Electric's partners, a big factor in the firm's quick comeback after the $130,000 blaze last year.

What did they do? Here's what one out-of-town representative says: "I was in Toledo within three days after learning of the fire. I took what material, literature, bulletins, etc., I could. . . . Fortunately, most of our stock was on the third floor and wasn't damaged. I entered a restocking order for parts kept on the first floor and had them expedited by phone. . . . I also helped in the office there as much as I could while in Toledo."

Says another: "On Saturday after the fire, we made a survey of which items would need to be replaced. We then sat down with Rich Poll and made up a stock order. Concurrently, we forwarded these orders and contacted the order supervisors so as to expedite them. . . . Back at Poll Electric, we helped on the physical separation of good and damaged material, arranging this equipment in the temporary quarters."

This sort of response held down the line among Poll Electric's suppliers. Adds another rep: "It was 'business as usual' for Poll Electric during this period. Their business, and ours, didn't suffer a bit. This is quite a testimony to the loyalty of their customers."

This defective steam pipe caused $400 damage before trouble was discovered. When it comes to insurance, Dick McNamara (right) and Patrick Patterson agree with management that . . .

It Pays to Read the Fine Print

FARRELL-ARGAST officials have become insurance conscious and have been "mighty careful about reading the small print" of policies since last December when steam from a defective valve damaged warehouse stock.

The company insures about 90 per cent of a $250,000 inventory. The premiums amount to about $6,500 annually. With this amount, officials believed they were protected from just about every type of damage. It was not until after the December incident they found they were wrong.

Before the insurance company was called in, Charles Argast, assistant secretary, began checking equipment in the basement warehouse for damage. Because most of the labels on motor control equipment had come unglued, and because most of the cardboard boxes were water-soaked, he had to identify by sight the various types of equipment to know what size boxes and which labels to order from the factory for repacking.

• **Time Lost**—All equipment had to be thoroughly inspected before repacking. Although some cartons did not burst, rust formed on some equipment when the warehouse area was brought back to room temperature.

When the survey was completed, Argast found that about $400 worth of motor controls had been damaged. In addition, personnel spent about 40 hours cleaning up the area. There was loss of money in repacking equipment and in obtaining new parts for damaged equipment. Display windows on the first floor had to be cleaned because of steam which formed on them.

"We keep stock valued at about $125,000 in the basement," Dick McNamara, assistant treasurer, says. "The major damage, however, occurred to the motor control equipment near the steam pipe. After spending $6,500 annually for insurance over a long period, we thought we were covered completely. When the insurance company came in, they informed us that damage from steam was not included in our policy, and that the only company offering this type of coverage was Lloyds of London."

• **Possible Coverage**—Company officials were told there were only two possible ways by which the damage would have been covered.

1. If the steam had reached a temperature hot enough to melt the lead in the sprinkler system, water would have sprayed on the cartons, and the insurance company would have paid for the damage.

2. If a fire had started, and the fire department had to pour water into the area, the insurance company, again, would have paid.

"Neither of these occurred," McNamara explains, "and we had to pay for the damage ourselves, even though we pay a lot for insurance to protect us against such things.

"This incident started us wondering just how well the electrical distributor thinks he is covered by insurance. As far as we can tell, there seems to be no insurance applicable to such things as floods or surface damage. Policies covering these losses are important to the distributor."

• **Contents Not Read** — McNamara believes at least 9 out of 10 electrical distributors do not know the entire contents of their insurance policies—that they do not read the "fine print" to see how extensively they are protected.

"Usually, when explaining a policy, an insurance man skims over many of the clauses and explains in detail only about coverage for major disasters," he says. "Most distributors do not inquire about detailed coverage, and take for granted they are fully protected. One fact remains: usually they are not fully covered. They discover it only when they try to collect for damage which was not included in the policy."

• **Take Precautions**—To prevent a similar occurrence, Farrell-Argast officials have taken the following steps for additional protection.

1. Installed a new steam pipe.

2. Moved all expensive equipment away from the area so that if the pipe should become defective, the steam would cause less damage.

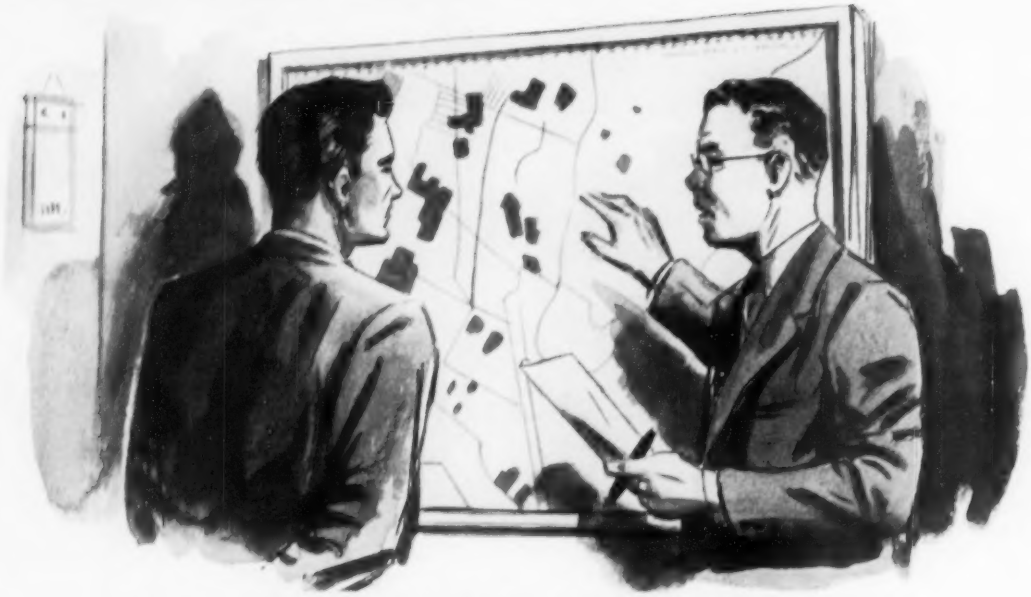
McNamara says that if the trouble had not been discovered for at least 12 hours, the damage would have been extensive, not only in the basement, but throughout the building.

The firm's control panels, which are only about 2½ feet from the steam pipe, were not damaged.

• **No Complete Coverage**—"It doesn't matter whether or not an insurance policy covers everything," McNamara says. "There will never be complete coverage. The time and money spent in repairing and cleaning damaged supplies and equipment can never be regained.

"As business-minded as we are today, it seems we could come up with something to give us full protection. It is up to each distributor to know just how fully he is protected.

"He should ask his insurance agent for details about coverage on every type of damage. Most important, he should know exactly what is in his insurance policy, and if there are any limitations. We didn't know what was in our policy. But you can bet it won't happen again."



"It's a matter of balancing selling time and territory mileage."

You Can't Spread Too Thin

After a month of selling trial-and-error, tyro salesman Junior Stevens gets some sound advice from his sales manager on how to cover a maximum of territory in a minimum of time to score effectively, sales-wise.

By Winston N. Coburn

"BUT C. A., I should have been triplets. That's the only way I could have squeezed in all my calls this month. Between the lists of prospects I dug out working with Bob Davis and that list of new leads that you mailed to me, I couldn't begin to see everyone."

Junior Stevens, Pioneer Distributor's new salesman, was reporting in to sales manager C. A. Martin after a month of solo selling and had just confessed that he had failed to contact several live leads that the manager had sent him.

Martin looked at Junior quietly for a moment. "Stevens, I'm sure that you appreciate the value of contacting live leads immediately. Those are prospective customers who have indicated that they want to see our salesman or are construction jobs where a real volume of business is possible. Let's get out your notebook and go over your calls this last month. I think we can develop some pointers on organizing your calls."

Junior reached for his notebook and the two men spent the next hour discussing the details of the month's work. Finally Martin leaned back for a thoughtful moment, then he began to analyze the situation.

"Stevens, your first problem is locating the customers and getting to see them. This month you contacted many of your contractors out on the job. Many contractors object to being bothered on the job.

"Arrange with these contractors to see them early, at noon, or after hours. Even a contractor that you have never called on previously might welcome a telephone call to arrange a meeting. More phone calls might have simplified a related problem: that of the many evening trips where you had to backtrack on your route to see contractors missed during the day. Many spend certain days in their offices to see salesmen and to plan jobs—try to learn their schedules.

"The second problem is that too much time has been spent with the wrong customers. For example, Paul Dudley—with whom you spent two hours, yet his potential is perhaps $50 per month.

"You can't afford to call regularly for less than $100 per month of sales. On the other hand, you failed to see the manager of Empire Electric Company where there is a potential of several thousand dollars per month. Now, I agree that Empire is a tough customer for a new salesman, that they even discourage you from calling, but their potential is a sound reason for calling.

"You mentioned that a great deal of conversation was required to locate your customers and to get them down to business. When you inquire where to locate a customer, be sure to identify yourself and your firm—explain that your business is sales. Once you find your prospect, give him time to get acquainted, sell yourself to him. A quiet, businesslike air on your part will hold conversation to a minimum.

"Now, you have stated that you spent a lot of time this month just cooling your heels, waiting to see customers. It requires a variety of techniques to overcome this problem. First, be very sure that the customer knows you are waiting. Try to find out how long he will be tied up. Second, make good use of your time while you are waiting. If it is a store, check over their stock, talk with the clerks, and make note of all items that are in short stock or new items which they might well add to their displays.

"If it's an industrial account, get permission on your first call to contact the plant electrician or the stockkeeper on following calls, so that you can learn the items that are short or needed. You can then save the buyer a great deal of time when you finally reach his desk. Many contractors have a small stockroom that you can get permission to check over while you wait.

"If you have a short wait ahead of you, write up orders, check your catalog, or check price sheets. If you find that you have a long wait, try to get a definite appointment for later in the day, step out to make a few phone calls ahead to other customers to line up appointments and to eliminate calls that will be unprofitable, or take time out to see a few nearby customers, then return.

"Finally, if the customer is low potential, it may even be best to leave a note that you will see him next trip, then leave to continue more promising calls.

"Interrupted sales interviews follow a similar pattern. You have to use sound judgment as to whether you will wait out the interruption or whether you will take action. If you decide to wait it out, do it quietly and with a minimum of fidgeting. Where the interruption promises to be a long one, make arrangements to come back later or get permission to make a few phone calls.

Capitalize on Interruptions

"A phone call may give you an opportunity to convince your customer that he should stock certain materials to meet such emergencies or that new equipment would be just the thing for this rush job. Your motto on interruptions will have to be: endure them, detour them, or best yet, capitalize on them.

"You say, Stevens, that customers took quite a bit of your time in helping them on estimates or helping them layout smaller jobs that had not been completely specified. As you develop your territory, you will have less and less time to spend on this assistance, therefore, start your customers off right.

"Try to get them in the habit of taking off their own list of materials and estimating the quantities. Send the list into the office for pricing where complete information is available. There is a real danger in trying to estimate for your contractors; an error can result in either too low or too high a bid. In either case you will probably lose your customer. There is a danger in layouts too, if you do not have full information, because your interpretation of code requirements can differ from the inspector's ruling. This can cost your customer money and he will never forget it. Yes, Stevens, emphasize that your suggestions are always just suggestions — that the customer must use his own judgment and experience to arrive at the final figures.

"New and inexperienced contractors will plead with you to do their estimates or layouts, but don't be tempted to do their work for them or you will find that they will blame you for their losses. Help them always, but don't become a partner in the business. Partners are jointly liable, you know.

"On the new construction that you tried to check for me, you explained that you had trouble finding out who was the contractor responsible. Most of the list sent to you were architect-specified jobs. On these the common practice has been to award the electrical contract separately. If the foreman on the job or the building owner cannot tell you who has the electrical contract, simply phone the architect. Some jobs are awarded to a single general contractor who in turn subcontracts the electrical work, or in a few cases the general contractor will give you the facts. On new construction that has not been awarded to a contractor, you will have to canvass your accounts to find those who are interested in preparing a bid and then will have to assist them in obtaining prices.

Make Phone Selling Tool

"Use the phone on this canvass—don't wait to contact them on your regular call. On jobs that are not architect-specified, you will usually find that the building owner is depending upon the general contractor to coordinate the various trades and that the general contractor has subcontracted the electrical work. See the general contractor on jobs of this type.

"On out-of-the-territory contractors who bring in the major items of material with them, go after the fill-in items or the emergency orders that are apt to occur on a big job. Remember, every construction job is potential business — go after it."

"Routing is an art in itself. You must always be gradually revising your routes to select the best customers and to make the best use of your time. I notice that you spent two days in Middletown, but you completed only twelve calls. Keep two days for Middletown, but set yourself a goal of twenty calls for these two days, then plan to hit some of the marginal customers in this city on your return trip. Now, in Mills Falls you travel forty miles to see just one customer, a paper mill. Try to develop other customers, even small ones, on that route to offset this extra mileage.

"Now, at another point on your route, I notice that you pass through Centerville and two other communities without a single customer. Often there will be a section that is completely served from larger communities surrounding it, but never take that condition for granted. Since you must drive through there, check very carefully to see if there aren't one or two customers that you can call on profitably. In Parksburg you have five contractor accounts and nothing else. Here you spent a full day and still missed one prospect. I suggest that you develop an industrial or store account in this town to fill in the time that contractors would ordinarily not be available.

Balance Time and Miles

"There are two factors to watch in routing: time and miles. Control them to obtain a high ratio of number of calls each day per miles travelled. In your territory I would aim first for an average of six calls per day for your entire area, then try to increase this to eight or more.

"There are two factors to watch in customer selection: potential and interest. Try to spend your selling effort where there is proven buying power on your customer's part and where there is an apparent interest in your services. That is why you erred in not following up those leads on interested customers promptly.

"Stevens, you don't need to be triplets—you don't need to be in three places at the same time. Just be in the place that counts."

"Gee, thanks C. A.," said Junior Stevens. "This month there will be fewer wild pitches."

COMING NEXT: "How To Make Sales in Your Sleep" —tieing in with the sales aids that help to pre-sell the customer.

GUESTS AT OPEN HOUSE in new showroom at Gesco's branch office, Yonkers, N.Y., inspect the various displays. Crystals are displayed in the center of the showroom, with other types of fixtures surrounding them. The event lasted three days.

SHOWROOM MANAGER Moe Kaplan sits at his desk near wall displays of bulbs and door chimes. Kaplan, who designed the new showroom, had been in the lighting fixture field 22 years prior to joining Gesco recently.

Something's

AN open house to highlight the completion of a residential lighting fixture showroom was held recently at the General Electric Supply Company's branch office, Yonkers, N. Y. Approximately 450 electrical contractors and architects attended the three-day event.

It was the third showroom to be opened in branch offices. At present, General Electric Supply Co. also has residential lighting showrooms in Hartford, Conn., and Hicksville, N.Y.

• **Was Warehouse**—The main showroom contains 1,000-sq ft of space, in which kitchen, bedroom, dining room, modern, provincial and crystal fixtures are tastefully displayed. In addition, outdoor and yard lighting fixtures are shown in a 108-sq ft corridor leading from the counter area to the main showroom.

OUTDOOR FIXTURES comprise a separate display. Here, lamp posts are located near attractive door leading to warehouse.

DINING AND BEDROOM fixtures are shown at one end of the 1,000-sq ft showroom, which formerly was warehouse space.

Been Added at Gesco, Yonkers

A new ingredient to existing facilities has been included at Gesco's branch: a lighting showroom designed to round out one-stop services for contractors.

Construction of the showroom, which formerly was warehouse space, was started last July, and was designed by Moe Kaplan, showroom manager. The wiring was planned by Ruby Simms, branch manager.

Prior to the conversion of the warehouse space into a showroom, the only home fixtures displayed were hung on the ceiling in the counter area.

There are 543 outlets in the showroom, and each fixture is plugged into its own box above an acoustical ceiling. The department is divided into different sections for each type of lighting.

• **Adequate Stock** — Kaplan says a complete warehouse stock will be maintained to back-up the showroom lines.

"We want to give our contractor customers all the service possible," he explains. "Whatever he sees and likes in the showroom, we will have in stock."

To keep traffic moving from one area to another, Kaplan designed a colored pattern in the inlaid linoleum which customers tend to follow when looking at the fixtures. Most fixtures are mounted on 24-in centers. Some are mounted on 36-in centers.

Kaplan, who has been in the residential lighting field 22 years, says he intends to participate in national programs such as "better light for better sight" to the trade in promoting residential lighting sales. At present, the outside salesmen are asking their accounts to bring in customers for selection of fixtures. In addition, the accounts are being supplied with courtesy cards which their customers may present at the showroom.

• **Round Out Picture**—W. R. Powell, merchandising manager of supplies and apparatus for GESCO, Bridgeport, Conn., says the showroom program is designed to give more service to the contractor.

"We feel we need to round out the picture for the contractor by making our supply houses a one-stop source of all materials," he says. "The program is designed as an objective market for the contractor. We need services to help contractors in serving their customers."

In addition to residential lighting fixtures, Kaplan displays on wall pegboards a large selection of bulbs for both indoor and outdoor fixtures. Other residential-type goods shown include door chimes, exhaust fans and bathroom cabinets. The showroom is located in Yonkers at 16 Harrison Ave.

Griffith: "Our business depends on customers"

About the Author

Bill Griffith started in the electrical supply business when he was 12. Begining as a stock boy 38 years ago at the Trenton Electric Supply Co., he has worked his way up through every department of the distribution business. The firm of which he is president—Griffith Electric Supply Co., Inc., Trenton, N. J.—was established in 1938. Griffith is a civic-minded individual. At present, he is president of the New Jersey Council of Electrical Leagues, a director of the Trenton Chamber of Commerce and a member of the United Funds organization. He is a past president of the Optimist club and a past PAL-of-the-year in Trenton. Most important to him: he practices in business and life what he preaches to others.

President William S. Griffith of Griffith Electric Supply Co., Trenton, N. J., has found that it takes much more than merely filling a customer's order to sell successfuly. Here, he tells you about his . . .

Nine Steps to Business Success

By William S. Griffith

THERE are many steps to business success that an electrical distributor can use to advantage. Each person has his own choice of what he considers services.

If his methods help him increase his sales at the same time he is giving service to the customer, then he is on the right track to successful selling.

Nine basic steps, I think, are necessary for every distributor to follow if he wants to improve his sales.

1. It's important to have a close family relationship in the organization. Every department and every person must work together for the greatest amount of efficiency. This cooperation—or lack of it—shows up in the attitude of a salesman with his customer. Through his attitude, the salesman can either gain or lose customers.

Internal cooperation gives all employees a better outlook on their jobs. When extra work is required, they will stay late or work Sundays—all because they feel they are an important part of the overall operation.

2. You can't sell goods if you don't have them. One of the most important things a distributor must have is a good inventory. If he has this, his customers will return.

Electrical contractors and industrial customers like

"Cooperation is essential"

"Suppliers are important"

to make one-stop purchases. If a distributor does not have everything a customer wants, he is giving a competitor an opportunity to take business away from him. The customer eventually might even take all of his business to a competitor.

Part-time customers are not as profitable to the distributor as full-time customers. To overcome part-time trade, it is advantageous to be able to select and anticipate what all customers need.

Some items may be slow-moving. However, some customers will always have a need for them.

3. Suppliers and their salesmen are important to the distributor who is interested in better selling. Actually, they are as important as a distributor's customers.

Through them, the distributor learns much about the items he purchases. This information, of course, can be passed on to his customers.

Suppliers' salesmen take an interest in the electrical wholesaling industry. That is their business. The advice they give distributors is priceless, and should be taken seriously.

4. The training of salesmen and countermen is very important. To be able to sell efficiently, they must know everything about the products they sell. They must know the various applications of the products, and be able to know where to find information fast for their customers.

All salesmen should be schooled in the different phases of business so they can be flexible in doing a good job. Experience is the best teacher, but they also can attend sales meetings and manufacturers' courses.

We try to interest our salesmen in attending the School of Industrial Arts. This is a night school in Trenton at which electrical courses are offered.

5. Ample building space for warehouse area is essential to serve the customer properly. In addition, plenty of parking space is one of the largest factors in getting people into the building.

It is important to make customers feel comfortable after they come in. If they don't like the attitude of the personnel, they might not come back. On the other hand, if they receive courteous and prompt attention, they will probably return.

Many customers like the idea of being able to get a soft drink or a cup of coffee or milk while they are waiting for their order to be filled. This might seem homey, but it is important in establishing and keeping friendly relations with customers.

If a distributor maintains good materials handling equipment in his building, he has an opportunity to provide good and fast service.

6. Pricing is important in making or breaking a distributor. At present, there is too much price-cutting and not enough profit-making.

Prices must be fair. When a customer tells us he can get a better price somewhere else, we discuss the entire situation with him. We try to show him what our overhead is and how we arrive at a fair price for him.

He is told that if he makes a purchase from a price-cutter, something will be missing—mainly service. It is not difficult for a customer to see that business can't continue without profit.

7. Office personnel play an important part in promoting better selling. The contractor likes to see an office near the counter area. This is because he can be within easy reach of statements or office information that might affect him.

When he gets to know the office personnel, and if they treat him well, he will begin to feel he is a part of the "family," and will return time after time to do business with the organization.

8. Our business depends on our customers. Therefore, it is the duty of distributors to help their customers in every possible way.

First, a distributor will go a long way in making money if he attempts to know as much as possible about his customers: how well they are able to get jobs, what price they get for their work, how dependable they are.

Up-to-date brochures and catalogs should be given to customers. Testing equipment that contractors can't afford can be loaned to them. If the firm employs an electrical engineer, his assistance can be invaluable.

9. A distributor must remember his civic responsibilities, above all. He should participate in local activities for the good of his community. If he takes part or is a leader in various organizations, he will find that business will automatically increase.

However, a businessman must keep in mind that he should not participate in civic affairs only to increase business. He has a moral responsibility to help others.

Behind all of these steps should be one thought: help the customer. If business increases, that is good. But that should not be the only intention of service.

If we think good and do good, we will receive good.

"If you do good, you receive good"

Inventory Records: Hein Cuts Down . . .

1. **SHORTS** are noted—as first step in purchase record system—on pads at end of shelving by David Volk, counter manager. In Hein's other warehouse, perpetual inventory is used; distance makes physical checks impractical.

2. **PHYSICAL CHECKS** of each line on a regular basis is Kohlenberg's "escape valve." He finds that these checks catch any shorts that have been missed and put him in a position to order on pre-paid freight basis.

'It's the Best System for

THERE'S a time and place for every business system, in the view of Sidney Kohlenberg, president of Milwaukee's Hein Electric Supply Co.

Kohlenberg figures that he operates a "typical" or medium-sized wholesale firm: 15,000-sq ft with six salesmen (which approximates the average firm as presented in EW's "Basic Dimension"—May '55, p. 104). And he operates Hein on the theory that your methods should be fitted to your size. For the medium-sized outfit, one-man techniques won't work—and neither will the big firm's methods.

Prime example of this theory in action in Hein's inventory control setup. It's designed to meet Hein's needs, and only those. It's a mixture of purchase records (*above*) and perpetual inventory. To Kohlenberg, it pays off in two ways: it saves him the additional salary that a full perpetual system would require, and he's found it nearly foolproof in stopping shortages.

• **Partial Perpetual**—Kohlenberg has no violent dislike of perpetual inventory; he simply thinks that it's too cumbersome for Hein. So he uses it—in part.

Conduit and some other merchandise is stored in a warehouse down the street. Partly because of the consignment reporting problem and partly because distance makes physical checks difficult, this material is kept on perpetual inventory.

Every item in the main house is entered on purchase record cards, some 6,000 of them. If there's more than one source of supply for interchangeable items, all are entered on the same cards.

• **Easy Entry**—When an order is placed, the secretary enters the date, vendor symbol, order number, quantity, price (if special) and unit. Later information on this order is entered on the same line: date and quantity invoiced, and date and quantity received.

The card also lists other useful information. The primary line is designated, and delivery totals are shown monthly (for two years) and yearly (for a five-year period).

Tied together with the purchase records is a double physical check. One is by the warehousemen, who note potential shorts on handy pads. The other is by Kohlenberg, who follows this up by periodic checks.

• **Other Ideas**—Kohlenberg applies this middle-of-the-road thinking to account information records. He thinks Hein can't work well either from memory or from fancy files.

So the firm uses a simple wheel file. It holds 1,000 cards with all types of account information—address, credit, number of invoices needed, shipping requirements. All information is entered in pencil for handy changes.

But when it comes to establishing his firm's name, Kohlenberg takes a different tack. Here, he figures, is where extra outlay can pay off.

Hein now uses a colorful, striking design on its letterhead, catalog covers and delivery trucks. As intended, the design has evoked a number of good comments from customers and suppliers.

. . . Labor, Shortages With Simple Methods

3. "WANT LIST"—daily summary of shorts—is checked against purchase file by Kohlenberg. He is key, but not indispensable, man in ordering routine. Requisitions are passed along to secretary, who types up orders for signature.

4. ENTRY of orders—and later, of invoices and deliveries—is job of Dorothy Wojciechowski. She spends an average of two hours daily on files; Kohlenberg figures that perpetual system would require another full-time employee.

Our Size'

. . . says Sidney Kohlenberg, president of Milwaukee's Hein Electric Supply. Best example: an effective mixture of purchase records and perpetual inventory.

From penciled data . . .

ACCOUNT NOTATIONS are kept in pencil, for easy changes, on this wheel file by Shirley Walther. Each customer has working card, which includes correct billing and shipping address, credit data, number of invoices required, etc.

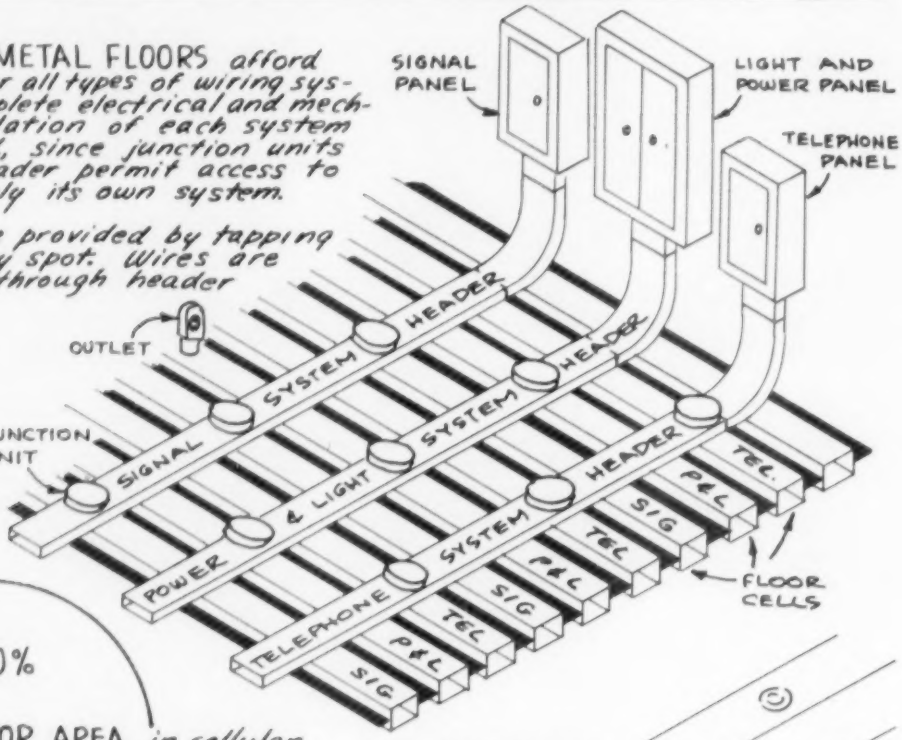
. . . to painted trucks

COLORFUL DESIGN on truck—with yellow and red shapes—is aimed toward giving the Hein firm public recognition. The same design is used on the firm's letterhead and catalogs. Says Kohlenberg: "We've gotten much good comment."

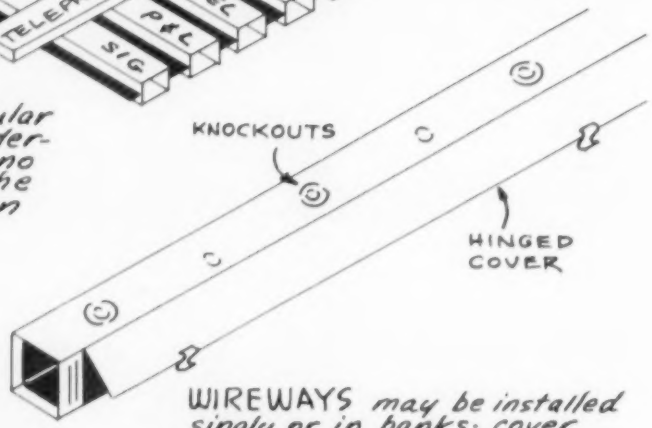
THE SALESMAN'S TECHNICAL NOTES No. 34

CELLULAR METAL FLOORS afford raceways for all types of wiring systems. Complete electrical and mechanical isolation of each system is assured, since junction units of each header permit access to cells of only its own system.

Outlets are provided by tapping cell at any spot. Wires are pulled in through header to panel.

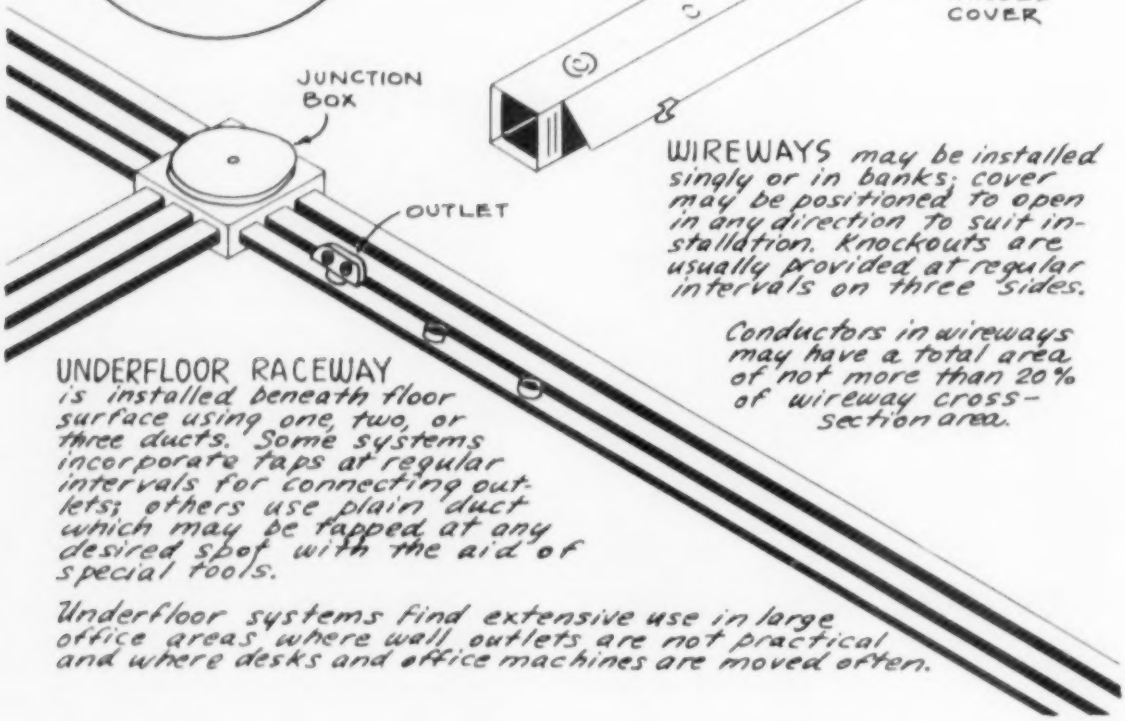


CONDUCTOR AREA in cellular metal floor cells and underfloor ducts may total no more than 40% of the raceway cross-section area.



WIREWAYS may be installed singly or in banks; cover may be positioned to open in any direction to suit installation. Knockouts are usually provided at regular intervals on three sides.

Conductors in wireways may have a total area of not more than 20% of wireway cross-section area.



UNDERFLOOR RACEWAY is installed beneath floor surface using one, two, or three ducts. Some systems incorporate taps at regular intervals for connecting outlets; others use plain duct which may be tapped at any desired spot with the aid of special tools.

Underfloor systems find extensive use in large office areas where wall outlets are not practical and where desks and office machines are moved often.

Raceways—IV

By J. F. McPartland and W. J. Novak

IN MODERN electrical systems, raceway applications include widespread use of underfloor raceways, cellular metal floor raceway, multi-outlet assemblies and many types of wireways. Each of these types of raceways has particular application advantages and must be used in accordance with special code requirements.

Underfloor Raceways

Underfloor raceway systems are widely used in modern commercial, industrial and institutional buildings. Both metallic and non-metallic underfloor ducts are made for single, double or triple duct runs to provide separate channels for running power and light circuits, signal and control circuits and communication circuits.

Underfloor raceway systems consist of duct runs between special junction boxes which are part of the system, all set below the surface of the concrete floor slab. Connections of floor outlets can be made through inserts cast in the floors, directly into underfloor raceways or rigid conduit branches can be run from the junction boxes. With this system, floor outlets can be spotted at regular intervals or at selected locations, either for present use or covered for use at a later date.

The use of underfloor distribution meets the demand for many and conveniently located outlets in modern interiors, providing flexible and ready utilization of lighting units, business machines, appliances, telephones, intercom and signal devices. Such a system provides for changes in office layout or change in the activity pursued in any area. And underfloor raceway systems can be used with any type of concrete slab construction and with wood floors. Connection between an underfloor raceway system and wall-mounted panelboards is made with conduit runs down in the wall and into the slab to the junction box.

A variation on underfloor raceway is flush floor raceway which is set flush in the slab in office occupancies and covered with linoleum or similar floor covering.

Underfloor raceways are prohibited by the code:
(1) if subject to corrosive vapors, (2) in any hazardous location, (3) in commercial garages and (4) in storage-battery rooms. Raceways are approved for use with particular sizes of conductors, but No. 1/0 is the maximum conductor size allowed in any underfloor raceway. The sum of cross-sectional areas of conductors in a raceway must not exceed 40 per cent of interior cross-sectional area of the raceway, except in the case of armored cable or type NM (non-metallic sheathed) cable.

Cellular Floor Raceway

Cellular metal floor raceway systems consist of structural load-carrying floors made up of hollow or cellular steel construction plus electrical fittings and accessories required to provide access to the cells in the floor to use them as raceways for power and light circuits and for signal and communication wiring. Several such floor constructions are available for use as raceways. Typical accessories needed to convert the structural floor to use as raceway include: header ducts which have openings on top and bottom to afford passage of wires from the header to the floor cells; vertical cells to extend from header ducts to panelboards or cabinets; floor outlet devices; junction units for use where wires turn from headers into floor cells; and floor covering adapters for use on junction boxes.

Header ducts are installed at right angles to the floor cells, with junction units spaced to correspond to cell centerlines for wiring from headers to cells. Separation of different electrical systems—power and light, signals, etc.—is accomplished by using separate headers connected to panelboards or cabinets supplying the different systems. Then each header provides access to distinct cells accommodating only one of the different electrical systems. Outlets are made only from the floor cells, which serve as the actual raceway, and never from the header ducts.

Multi-Outlet Assembly

Multi-outlet assemblies are surface type raceway systems for branch circuit wiring, with convenience receptacle outlets spaced at fixed or adjustable positions along the length of the raceway. Such assemblies are made in several styles for wall mounting, mounting along baseboard, mounting in baseboard, etc. Such assemblies provide convenient use of electric power in residential, industrial and commercial areas requiring flexible use of plug-in appliances.

According to the National Electrical Code, multi-outlet assembly may be used in dry locations. **It may not be used:** concealed, except that it may be recessed; where subject to severe mechanical injury; and where general use of surface metal raceway is prohibited as described in the foregoing section. Multi-outlet assembly may not be extended through walls or floors.

Wireways

Wireways are sheet-metal troughs with hinged or removable covers for housing and protecting electrical wires and cables and in which conductors are laid in place after the wireway has been installed as a complete system. Wireways may be standard manufactured type or custom made for particular applications. They may be used only for exposed work in dry locations; **they may not be used** where subject to severe mechanical injury or corrosive vapor, in hoistways, in any hazardous location or in storage-battery rooms.

The largest size conductor allowed in any wireway is 500 MCM. No more than 30 conductors may be installed through a wireway at any cross-section, except in the case of conductors between a motor and its starter and used only for starting duty.

Wireways are widely used for enclosing feeders or mains when a large number of conductors must be located in one run, for enclosing splices and taps from feeders or subfeeders to transformers, switches, or branch circuits, for enclosing motor control and other control circuits.

Next Month: Wiring Devices

You profit when people read "Skimpy Wiring" ads like this...

Kennecott's national campaign for better home wiring with copper *helps your contractors to get more rewiring jobs, your dealers to make more sales.*

Use this FREE material for your own better wiring promotions.

Send today for free reprints and poster-sized blowups of Kennecott's latest full-page national advertisements featuring "Skimpy Wiring." Get free copies of the educational booklet, "The ABC of Home Wiring." Ask for complimentary Home Wiring Wall Chart, mat service folder and list of at-cost prices of all material available. No cost, no obligation! Just write to Kennecott Copper Corporation, Dept.WH 106 161 East 42nd St., New York 17, N.Y.

The Best Wiring is Copper!

This ad appears in:
This Week and Chicago Tribune (Sunday Magazines) Aug. 26, '56

He makes slow work of do-it-yourself jobs!

Weak, undersized "Skimpy Wiring" actually holds back the electrical energy that gives muscle to motors. Don't expect new electric-drill bits or sharp circular-saw blades to speed your work if he is around. This current-stealing household pest can slow down and stall the finest power tools.

Find out how to rid your home of the many electrical ills symbolized by "Skimpy Wiring". Learn how easy it can be . . . how little it can cost . . . to give your home the full HOUSEPOWER of an *up-to-date copper wiring system*. Talk it over with your local power company or electrical contractor.

Get FREE Booklet! "The ABC of Home Wiring." It clearly explains important facts about your electricity and how you can make it serve you better. For your free copy, just write: Kennecott Copper Corporation, Department L96, Box 238, New York 46, New York.

Kennecott Copper Corporation

Fabricating Subsidiaries: Chase Brass & Copper Co. • Kennecott Wire and Cable Co.

Profit-wise distributors choose CHAMPION to get a

NEW LEASE ON LIGHT

WHY IT PAYS TO SELL CHAMPION LAMPS

1. Controlled distribution protects your volume and profit.
2. Close, personal field support builds sales.
3. Valuable technical services cement customer relations.
4. Top quality insures customer satisfaction.
5. Made and tested to meet exacting industrial standards.

Why be satisfied to coast along selling the same old lamps as everyone else when you can put new life in volume and profits by selling Champions? For Champion Lamps are sold only by selected suppliers like yourself. They give you a fresh crack at new accounts — they keep repeat business flowing back to you, not to the next competitive lamp salesman who happens along.

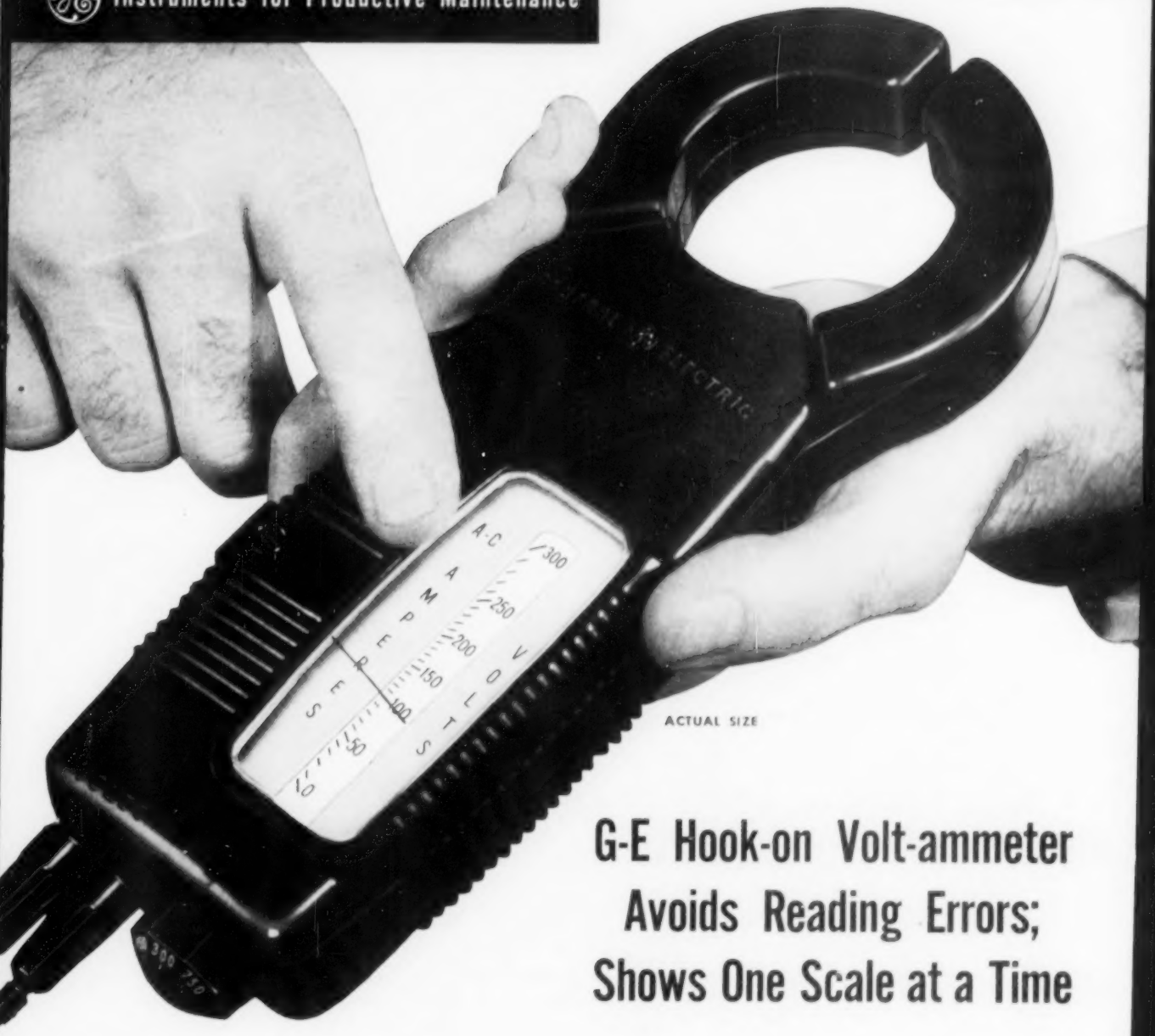
Choose Champion to better your business in lamps in every way. Write for full information.

CHAMPION LAMP WORKS

LYNN, MASSACHUSETTS

A DIVISION OF CONSOLIDATED ELECTRIC LAMP COMPANY

Instruments for Productive Maintenance



ACTUAL SIZE

G-E Hook-on Volt-ammeter Avoids Reading Errors; Shows One Scale at a Time

EASY TO USE, General Electric's hook-on volt-ammeter shows only one scale at a time. This way, you avoid reading the wrong scale, as can be done with multiple-scale-face instruments. Range and scale of the instrument are changed simultaneously by turning the finger-tip control knob. Selection is easy because both models, Types AK-4 and AK-5, have current scales marked in black and voltage scales marked in red.

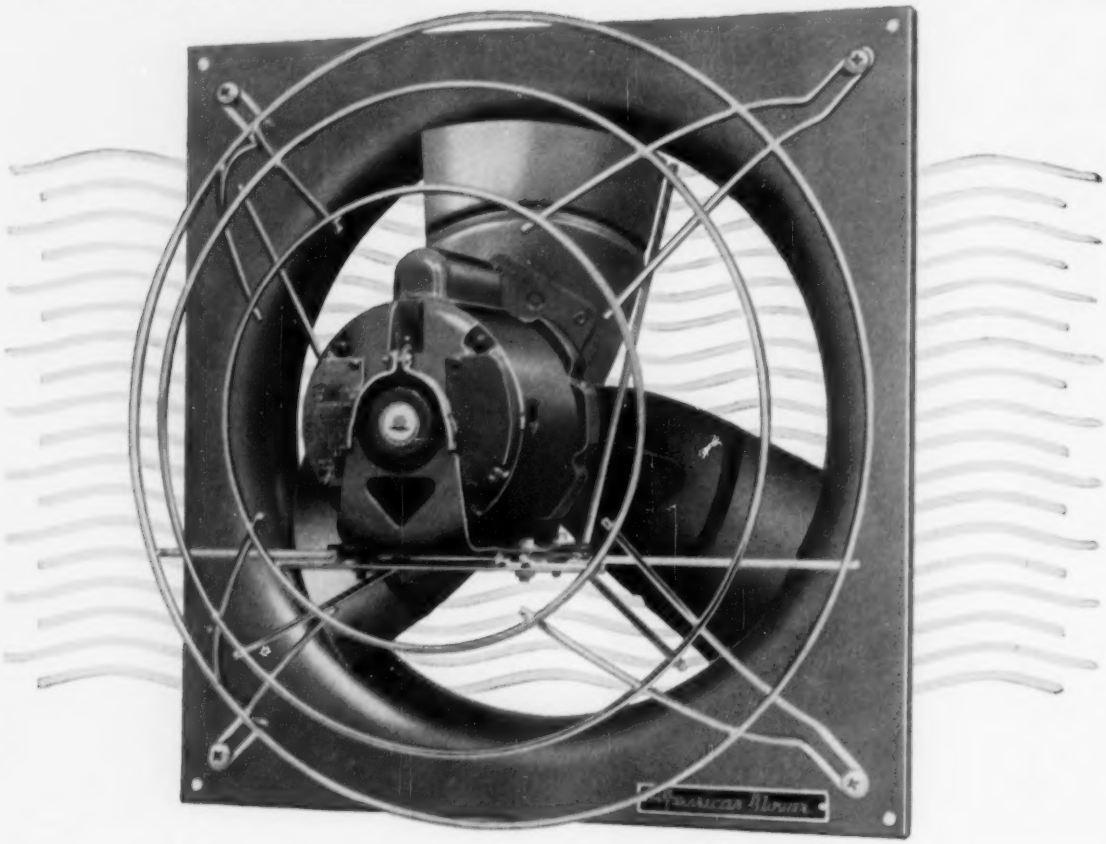
DISTRIBUTORS find that contractors, electricians, maintenance and service men consider the G-E hook-on volt-ammeter ideal for a wide variety of testing problems. Accurate, safe, and easy to operate, it can be used for checking motor loads and starting currents, balancing polyphase systems, checking line voltages, trouble shooting fuse boxes and control circuits, repairing electrical appliances, estimating new or revised distribution circuits, and diagnosing many operating problems without shutting down equipment.

WIDE RANGES in both models allow great versatility of application. Ranges of the AK-4 model are 0-10/30/-100/300/800 amperes and 0-150/300/750 volts. The AK-5 ranges are 0-5/20/80/350 amperes and 0-150/-300/750 volts. The wider range AK-4 model has a pointer-stop to check surge readings.

DISTRIBUTORS—FOR FURTHER INFORMATION, write Section 582-12, General Electric Co., Schenectady 5, New York and ask for bulletin GEA-6292, or contact your nearest G-E Apparatus Sales Office for details on how you can sell the G-E hook-on volt-ammeter.

GENERAL ELECTRIC

American Blower Model G Ventura Fan



Streamline inlet gives higher efficiency, quieter operation

This is only one of many engineering and design features which make American Blower Ventura Fans a popular choice for all types of commercial and industrial applications—from cafeterias and laundries to sales rooms and warehouses.

Ventura Fans operate quietly as they whisk away stale air or fumes; have certified ratings; come in a wide range of sizes and models. Fact is: American Blower has a complete line of propeller fans—as well as blowers, attic fans, and home ventilators . . . a good reason why it pays to *standardize* on American Blower.

Why not call our nearest branch today for full information.

IT PAYS TO STANDARDIZE ON THE AMERICAN BLOWER LINE!

- **Ventura Fans** for efficient commercial and industrial ventilation; propeller type; 10 to 72 inches. Certified ratings.
- **Utility Sets** for general supply or exhaust duty. Ratings certified; self-contained. Sirocco wheels, 3 to 36 inches.
- **Aeropel Home Ventilators** for use in kitchens, bathrooms, recreation and laundry rooms. Attractive design; quiet; easy to install.
- **Attic Fans** for comfort cooling at low cost in homes, apartments, hotels. Ratings certified; vertical or horizontal models.

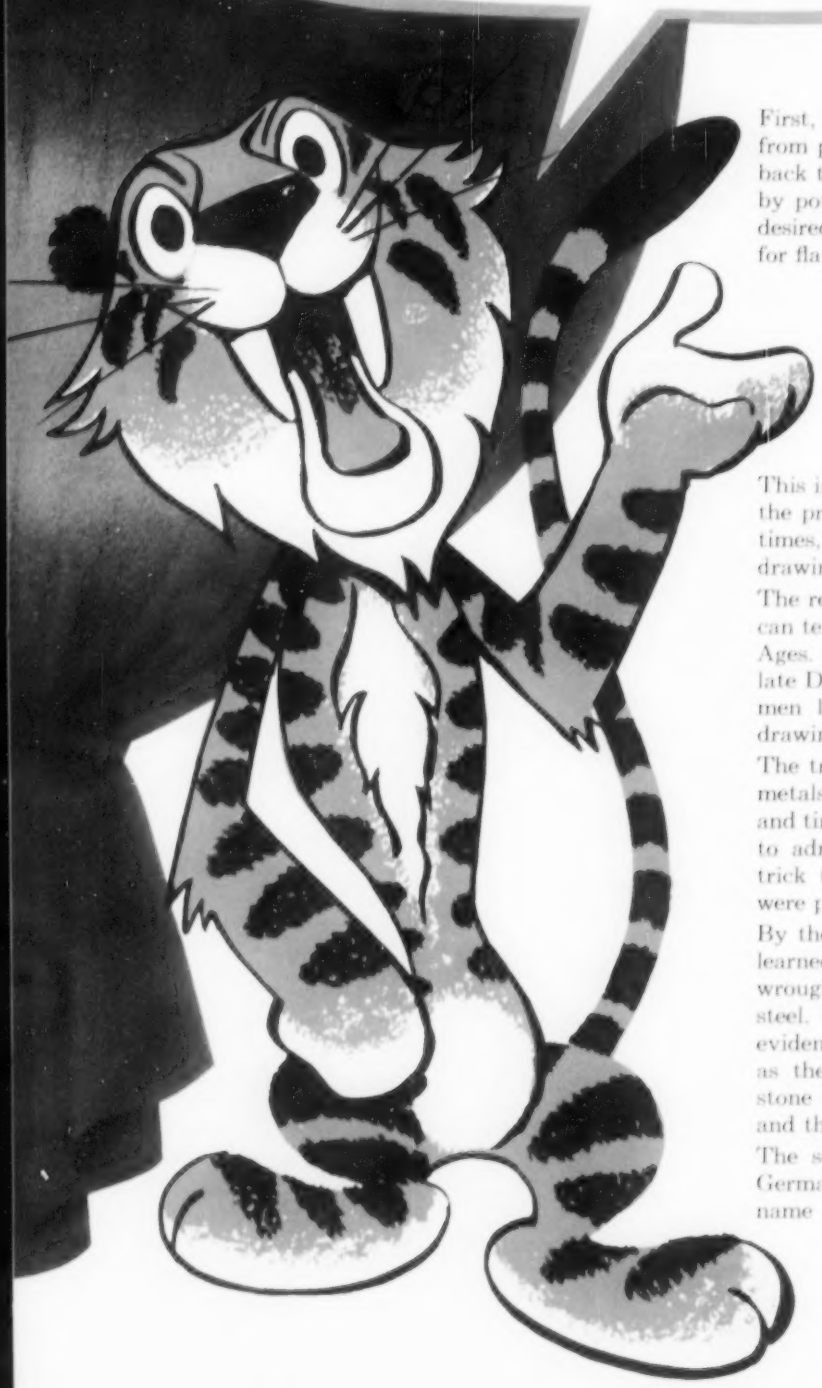
AMERICAN BLOWER

Division of American-Standard

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN • CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO

AT LAST! An excuse
to tell
our favorite story!

Did you ever hear the incredible, staggering, marvelous story of how they learned to draw steel wire? Since this is our 125th anniversary, it seems an appropriate time to let you in on one of the most underplayed industrial dramas of all time.



First, a little background. Wire, mostly made from precious metals, has been found that dates back to the year 2750 B.C. It was usually made by pounding on a bar with a hammer until the desired shape was obtained. They usually settled for flat wire.

This inefficient production method gave chills to the production men even back in the Pharaohs' times, so the race was on to find a method of drawing wire through dies.

The records are kind of sloppy, but as far as we can tell, the big break-through came in the Dark Ages. Some authorities further refine it to the late Dark Ages; but suffice it to say that learned men like Theophilus were writing about wire drawing in the period from 800 to 900 A.D.

The trouble was that they could only draw soft metals like gold or a then-popular alloy of lead and tin which we know as solder today. You have to admit that it doesn't seem like much of a trick to draw *solder* through a die, but things were pretty tough in those days.

By the beginning of the 17th century, men had learned how to draw still harder metals, like wrought iron. But *nobody* could draw high carbon steel. Not that they didn't try. There is some evidence that men searched for a drawing process as they searched for the elusive philosophers' stone that would transmute lead into gold . . . and they met with the same success.

The scene shifts to the little town of Altena, Germany, around the year 1650. Our hero (his name is in dispute, but it was probably one

Johann Gerdes) had tried all sorts of wire drawing tricks. He used dozens of different die lubricants, weird types of dies, slow pulling, fast pulling, high and low temperatures. Nothing worked, so you can hardly blame him for picking up the bundle of steel rods and marching outside with them. There, he flung open the door of what might be loosely called the gents' rest room, and dumped the rods down the hatch.

Some time later, they needed more rods for the experiment, so a few hardy souls retrieved the ones that had been banished in such a dramatic manner. The rods were carried back into the little factory and they drew beautifully—the first drawn high carbon steel wire. Some profound change had taken place in the steel. They didn't know what had happened, but they liked the results.

A thriving industry grew up in Altena. And they say it was quite a sight to see the workers come in of a morning with a yoke pole across their backs, supporting a lunch bucket at one end and a common household utensil at the other—the raw materials for a day at the wire mill.

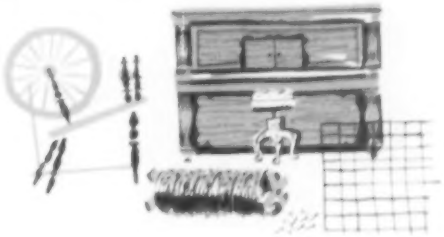
Altena enjoyed a complete monopoly on steel wire drawing for almost a century, until an obviously disgruntled worker found that dilute sour beer would also do the job. Finally, some kill-joy discovered that you could even use *water* if you did it right. The "secret" spread, and from then on, Altena had to bask in her rather impressive past glory.

On this 125th anniversary, we think we are entitled to mention that American Steel & Wire is a highly reputable organization employing about 30,000 devoted workers who really know how to do things to wire. The original company was formed in 1831 by two live-wire gentlemen named Ichabod Washburn and Benjamin Goddard, who, if they lived in this wonderful generation, would probably own half of the United States and Canada. Brilliant as these gentlemen were, the company never really started to roll until ladies became interested in hoop skirts, because this was the first true volume market for wire!

After the Civil War, the hoop skirt market went to pieces (you know how women are about fashion), and things looked pretty gloomy until barbed wire was invented around 1870. It's been one thing after another right up to the present time.

As the most knowledgeable wire maker in the USA, it was rather natural for us to begin making electrical wire and cable right at the beginning—1891 to be exact. Our salesmen frequently stumble across Tiger Brand electrical cable that has been buried in the ground or under water for 30 to 40 years and is still giving good service.

When we discuss incidents like this at our frequent sales meetings, the general comment is that our high production standards certainly don't help our replacement market very much, but fortunately, we're part of a great and growing industry. And, what with nuclear power plants and the like, there will always be a big demand for Tiger Brand Electrical Wire and Cable from buyers who want that extra margin of quality that we learned to build into our products a long, long time ago.



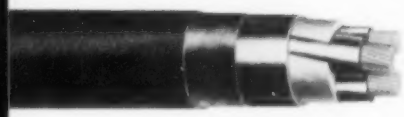
A brief summary of Tiger Brand Electrical Wire & Cable

TIGER BRAND PAPER CABLE

Premium quality cable for high voltage use. Lead sheaths are applied under high pressure to insure dense surface. Lead tanks are kept under inert atmosphere to prevent formation of impurities. All constructions available, including type GN glass, neoprene fabric jackets.

TIGER BRAND ASBESTOS CABLE

On these cables, we do *not* apply the asbestos as a twisted yarn, because the yarn will frequently open when the cable is kinked. Tiger Brand cables feature asbestos that is combed and carded, then applied as a true felt which is compressed tightly around the conductor.

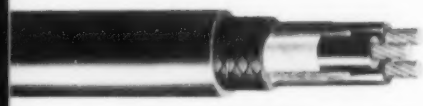


TIGER BRAND VARNISHED CAMBRIC CABLE

This is the great "in-between" insulation, for use where you want greater moisture resistance than paper has, and higher voltage ratings than offered by rubber insulations. In dry locations, varnished cambric can be used without a lead sheath, because it is not subject to oil drainage.

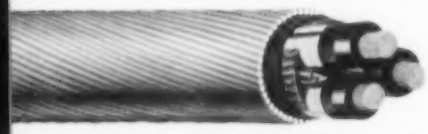
TIGER BRAND RR CABLE

Features rubber insulation and a neoprene sheath. A versatile cable—with heavy jackets—it can be buried directly in the earth. It is perfect for conduit wiring when supplied with a thin sheath. When several RR cables are combined with a bare messenger, you have a self-supporting aerial cable.



TIGER BRAND AMERCLAD

The very highest quality in *heavy-duty* portable cords and cables. All jackets are vulcanized in a lead sheath, and are permanently marked with molded identifications. High neoprene jackets show phenomenal resistance to abuse, sunlight, grease, oil or acid mine water.



TIGER BRAND SUBMARINE CABLE

Many Tiger Brand submarine cables are still in service after 30 or more years. Heavy galvanized steel armor wires are applied with long lay to resist tensile stress. AS&W pioneered in construction of aluminum armor for salt water use.

TIGER BRAND INTERLOCKED ARMOR CABLE

Available up to four-inch core diameter, with armor of steel or aluminum. Eliminates costly conduit bending and fitting. Splices can be made anywhere along the cable's length. A great money saver for plant wiring installations, especially in cramped quarters.

TIGER BRAND ELEVATOR CABLE

Cables are carefully designed to have just the right degree of flexibility so they will bend easily at the bottom of the shaft, but not so sharply that the wires will be deformed. We also supply a complete range of annunciator, lighting and signal cable, plus hatch wire for elevator shafts.

A Standard Tiger Brand Cable for every special job

AMERICAN STEEL & WIRE DIVISION • UNITED STATES STEEL

USS Tiger Brand Electrical Wire & Cable

Credit Shortage Pinches

- **Federal Reserve Board puts squeeze on credit, seeks to control inflationary pressures.**
- **Business demands more loans for normal needs, plus new plant and equipment expansion.**

CREDIT POLICY has become the chief topic of debate among those who are attempting to forecast the trend of business over the longer term. So, the current Federal Reserve Board policy of "tightening the screws" seems a pertinent topic for discussion.

The McGraw-Hill Department of Economics has put together an analysis of the recent moves by the "Fed" (as it is known in banking circles), and their long range implications, introduced by its own survey of the current situation and the pressures inducing the credit restraint policy.

In terms of the total volume of business in prospect for the nation, the outlook now and for at least the next six to eight months should be excellent. Plus factors include the replenishing of steel inventories drawn down during the strike, the producing of new automobile models, the launching of the government's bigger and better highway and aircraft programs and the continuing expansion of the boom in capital goods. All these will contribute to moving business along in high gear and keeping it there for months to come.

• **Speculation**—In fact, the only overshadowing worry about the general economic outlook in the months ahead would seem to be that business will get over exuberant, indulge in a speculative spree and wind up with the customarily painful "hangover."

So far as history goes, the wind-up of long sustained periods of economic expansion, ever since the Civil War has uniformly been a speculative spree, a crash and a depression.

Sticking to recent history, it is apparent that our record-breaking postwar expansion has gained more momentum since the mild recession in 1953-54; and thus it is possible, if history is to repeat, that we are really "ripe for a fall."

Possible future developments which have speculative potential include a scramble for steel products to overcome shortages created by the strike and a general bidding up of industrial prices in the wake of higher steel and labor costs. We had just such a development after the steel strike in the summer of 1952. By the second quarter of 1953, business inventory formation reached an annual rate of $4.5 billion, which was heavily concentrated in durable goods. And the prices of metals and metal products went up 6 per cent in the process. In 1953 also—and it could happen again—there was a surging market for consumer durables.

But in 1953 sagging agricultural prices provided a counterweight which kept the price level as a whole on a remarkably even keel. Now that counterweight is gone. Prices of farm products, after cautiously edging up for the past six months, are steady. The result is that any sharp increase in industrial prices this fall would have far broader economic effects than a similar rise when farm prices were falling. One of the places where a rise in industrial prices might be contagious is the stock market.

• **Credit Tight**—It is, of course, against the threat of a destructive wave of price inflation that the Federal Reserve authorities have arrayed the policy of making the supply of credit relatively scarce and increasingly expensive. With credit dollars—which will buy just as much as cash dollars—scarcer and more expensive to hire, the reasoning runs, a damper is put on the inflationary process of bidding up prices.

For the work of keeping a lid on prices which they have cut out for themselves, the Federal Reserve authorities must work with extremely cumbersome equipment. The wave of price inflation which they are trying to contain started in the metal and metalworking business, largely as a result of wage increases which outstrip the increase in productivity and thus increase costs and the necessity of higher prices. But the banking authorities have no way to operate on the prices of metal products directly. The only instrument they have available is a general control of the price

Continued on page 90

"CAP'N" JACK BAER RETIRES after 46 years of salesmanship in the electrical wholesaling industry, 25 of this with Mill-Power Supply Co., Charlotte, N. C. This southern pioneer contractor sales specialist and disciple of "old fashioned selling" (EW, May 1954, p. 69) was honored at a dinner by 70 friends and customers representing the electrical industry around Charlotte. Mr. Baer (second from left) receives congratulations and a movie camera and projector from Charles W. Mosely, presented on behalf of those present. His boss, W. G. Thomas (left), president of Mill-Power Supply, and toastmaster Ralph K. Robinson (far right), both paid high tribute to him. Movie camera caught a complete candid record of the party as a memento for Mr. Baer. Next day his fellow employees presented a ship's clock and barometer set inscribed to "Cap'n Jack."

THE MARKET FOR THIS CONTROL TRANSFORMER GETS BIGGER EVERY DAY

Every day more plants are conforming to the Safety Requirements of Electrical Codes and replacing 250 volt push button and switch systems to 115 volt operation.

This means a market for new controls and new control type transformers.

With the Acme line of Machine Tool Control transformers you can fill every application from a minimum of stock sizes. External taps on the primary provide for 575/460/230 volts, 50/60 cycles, secondary 95/115 volts. Available from stock in capacities from 50 VA to 1500 VA.

You can sell these transformers with the confidence that you are doing your customer a favor. The unusually high voltage regulation (low voltage drop) during inductance of control components is an unmatched feature of these units.

Write for Bulletin MTC-194B and MTC-1.

ACME ELECTRIC CORPORATION
6710 WATER STREET CUBA, NEW YORK

Acme Electric
TRANSFORMERS

CHUCKLE OF THE MONTH

It finally happened! Everybody brought in returns the same time today!

CREDIT SHORTAGE (Cont.)

and amount of bank credit.

In effect, the Federal Reserve authorities are equipped with a blunderbuss rather than a rifle. And, as usually happens when a blunderbuss is brought into play, innocent bystanders get hurt. This is the case, right now, at least in some degree, with the residential construction industry. As measured by housing starts, its volume of business is running more than a fourth lower than it was at peak (December 1954); and one reason is that mortgage credit, caught in the general credit squeeze, is relatively hard to get.

As matters stand, mortgages are not able to compete as successfully as formerly for credit with loans to industry for purchase of plant and equipment, the price of which has moved up with the general increase in interest rates. In the first half of this year, for example, total mortgage debt outstanding rose only 80 per cent as much as in the first half of 1955, while corporate securities outstanding increased 40 per cent *faster* than in the same six months of 1955.

• **Sound Policy**—There is no intention to leave any implication here that the nation would be better off if the Federal Reserve authorities were equipped with authority and machinery to pinpoint their efforts to control inflation by focussing them on particular commodity prices.

In terms of the preservation of relative freedom of economic action and, hence, both economic and political democracy, it is far safer to rely on general monetary and credit controls than it is on specific controls. But this does not alter the fact that the instruments available to the Federal Reserve authorities, in their effort to scotch what they regard as the threat of destructive price inflation, must be applied with consummate skill. Or else effects of its policy may show up in business decisions to postpone some of the expansion that is normally dependent on bank credit.

In theory, a really heavy-handed Federal Reserve policy could pinch off the supply of credit so suddenly, and keep it off for a sufficiently vital period, that business would actually cancel much of its new construction and begin dumping its inventories. However, in recent years the monetary authorities have never been that heavy-handed. They have learned a great deal about the use of their powers since the recession of 1937-38, which was widely blamed on precipitate action by the Federal Reserve.

(Continued on page 112)

Electricians everywhere are saying, "The new C-H 4151 is IT. There is nothing like it on the market." You'll say so too . . . for three big reasons. It installs easier. It works better. It lasts longer. Check these features.

Installs easier—The high strength phenolic molded unit base can be easily removed and replaced by two screws for 3-point mounting of the enclosing case and wire pulling freedom. All "easy-tite" terminals are out-front eliminating skinned knuckles and wire "pretzel" bending. "Easy-tite" terminals make wiring as simple as one, two, three. 1. Insert wire in hole provided. 2. Pull down to screw terminal. 3. Tighten.

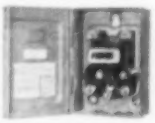
Works better—Solid silver double break butt type contacts have long been standard equipment on quality motor control, and now Cutler-Hammer's exclusive *A-c* design incorporates all these features in the *midget* 4151 safety switch. Positive break of the butt type contacts is accomplished by the camming action of the toggle operator. A non-current carrying compression spring snap-closes the contacts when flipping the toggle to the "on" position. This spring can't heat and lose its tension; therefore, always insures constant and uniform contact pressure.

Lasts longer—Top performance at low cost is due to the 4151 being engineered for *A-c* service exclusively. Face-to-face closing of butt type contacts receive only a fraction of the wear common to other general use safety switches. Double break contacts halve the arc voltage and further increase the contact life. Solid silver contacts are known to have superior life to either copper or bronze. A Cutler-Hammer "first." A Cutler-Hammer exclusive.

Order the C-H 4151 *midget* Safety Switch from your authorized Cutler-Hammer Distributor today. CUTLER-HAMMER, Inc., 1327 St. Paul Ave., Milwaukee 1, Wis.

4151-H241 30 Amp. 2 wire S/N; 1 Fuse. 120 Volts A-c. Dimensions: 2⅞" x 5⅛" x 2¼". List: $4.20

4151-H291 30 Amp. 2 Pole; 2 Fuses. 120/240 Volts A-c. Dimensions: 4" x 5⅝" x 2¼". List: $5.20



4151-H341 30 Amp. 3 wire S/N; 2 Fuses. 120/240 Volts A-c. Dimensions: 4" x 5⅝" x 2¼". List: $5.50

EXTRA VALUE
CUTLER-HAMMER
SAFETY SWITCHES
C-H
AT NO EXTRA COST

WHAT'S HAPPENING IN WASHINGTON

● **Housing Credit Eased**—At mid-month the government took somewhat unexpected action to ease the pinch in mortgage credit and to pep up the sales of low-cost homes. It may have been unexpected news, but certainly it was just what everyone had been asking for—that includes home builders, prospective buyers, mortgage lenders, even the FHA itself.

Here, in essence, is what happened: the minimum downpayment on homes appraised at $9,000 or less and financed with FHA-insured mortgages was reduced from seven to five per cent, the minimum allowable. This had the effect of erasing increases imposed a year ago. The price which the Federal National Mortgage Assn. ("Fannie Mae") will pay for mortgages was raised by one per cent, in a bid to provide more funds for both home builders and buyers. Also, the borrowing limit of savings and loan associations was raised, expanding their mortgage lending potential.

FHA says that reducing downpayments is part of a planned campaign being carried on with home builders to reduce building costs generally. FHA hopes this latest move will be an incentive to builders to bring real ingenuity to bear on the problems of meeting rising costs.

The fact that the actions were announced by the White House, rather than the agencies themselves, perhaps indicates the political importance of housing.

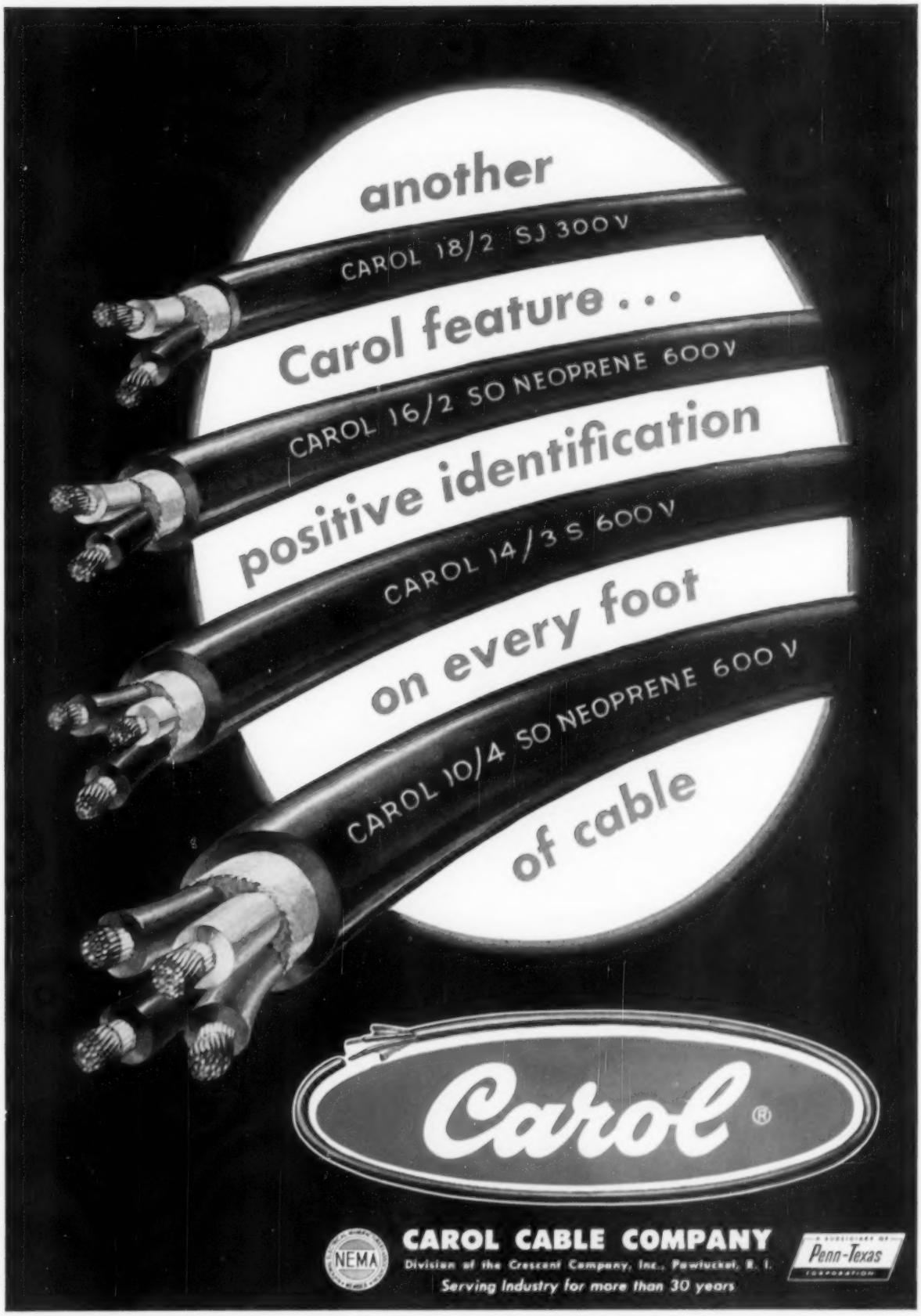
● **Military Rentals**—Controversy has engulfed the huge new Military Rental Housing Program in which Congress authorized 150,000 units, at an estimated cost of $2 billion. Contractors building houses for sale are fighting it. They have had limited success. For example, bid openings have been delayed for projects at such locations as Fort Bliss, Tex., and White Sands, N.M.

Military officials say, however, the program will not be stymied. They have already pushed for—and won—approval from Congressional Committees for non-controversial segments of the program, say they expect final clearance soon of about 70,000 units—almost half of the program.

● **Small Business Loans**—Little loans are boosting Small Business Administration lending activity. These are part of the agency's new limited participation loan program, which allows a borrower to get up to $15,000 if his local bank will underwrite 25 per cent of the full amount and handle paperwork on the transaction. Since July 1, these have been accounting for ¾ of SBA's approved loans, and have gone mainly to retailers and wholesalers—small businessmen feeling a credit pinch.

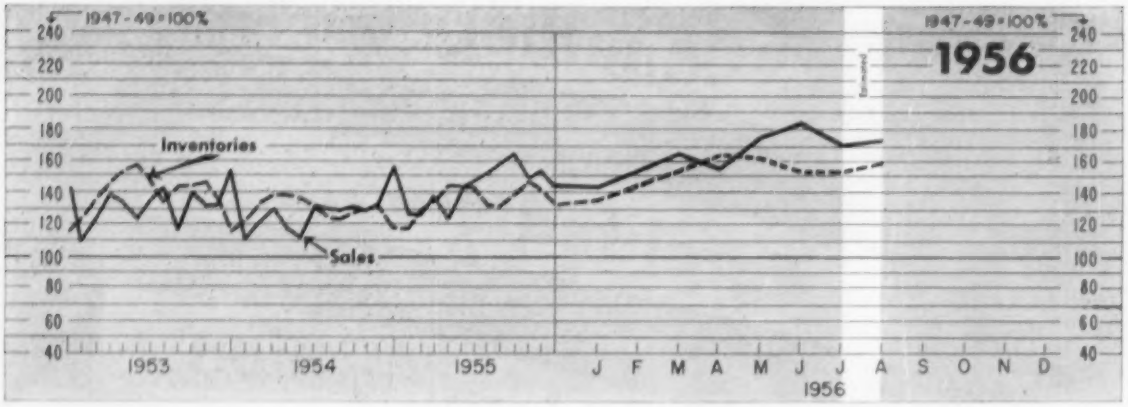
● **SPA Rates**—Congressional attempts to maintain present South-western Power Administration rates have failed. President Eisenhower vetoed a bill that would have blocked a rate increase of about 2.2 mils in SPA rates, which Interior Department says are too low, causing a deficit.

● **Fast Writeoffs**—Office of Defense Mobilization has issued these new accelerated tax amortization certificates for power transmission facilities: Indiana & Michigan Electric, 35 per cent of $1.8 million and 65 per cent of $11.2 million; Pacific Gas & Electric, 35 per cent of $300,000; Hartford Electric Light, 65 per cent of $1 million; Chicago District Generating Corp., 55 per cent of $2.8 million; Central Power & Light, 55 per cent of $450,000.


another
CAROL 18/2 SJ 300 V
Carol feature . . .
CAROL 16/2 SO NEOPRENE 600 V
positive identification
CAROL 14/3 S 600 V
on every foot
CAROL 10/4 SO NEOPRENE 600 V
of cable
Carol®
NEMA
CAROL CABLE COMPANY
Division of the Crescent Company, Inc., Pawtucket, R. I.
Serving Industry for more than 30 years
Penn-Texas

BUSINESS INDEX for July 1956*

NATIONAL PICTURE:



	INDEX					% CHANGE
	July 1956	*June 1956*	*July 1955*	*July 1954*	*July 1953*	*1956 from 1955*
Sales	170	182	151	131	145	+20
Inventories	154	153	133	126	136	—

REGIONAL PICTURE:

	SALES (% Change)			INVENTORIES (% Change)	
	From June 1956	*From July 1955*	*1956 from 1955***	*From June 1956*	*From July 1955*
NEW ENGLAND	−3	+17	+29	−1	+38
MIDDLE ATLANTIC	−13	+8	+27	+5	+23
EAST NORTH CENTRAL	−14	+10	+17	+2	+30
WEST NORTH CENTRAL	−16	+2	+16	+2	+20
SOUTH ATLANTIC	−6	+11	+18	−5	+28
EAST SOUTH CENTRAL	+6	+17	+18	+1	+33
WEST SOUTH CENTRAL	+5	+23	+19	0	+17
MOUNTAIN	−7	+4	+9	−3	+11
PACIFIC	−4	+19	+19	−1	+24

***SOURCE:** Bureau of the Census. August projection is by this publication. **7 months 1956 from 7 months 1955

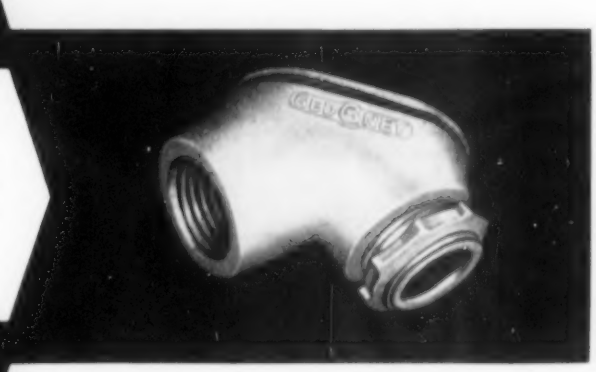
GEDNEY'S RIGHT THERE IN YOUR CORNER

helping save time . . . hold down costs

CORNER FITTINGS? Well, here are three that have proved immensely popular for the simple reason they're easiest to install – save time and labor that really counts up. Like the rest of the full Gedney line they're made of unbreakable malleable iron...accurately machined and threaded . . . individually inspected. Order Gedney – always – for lowest installed costs!

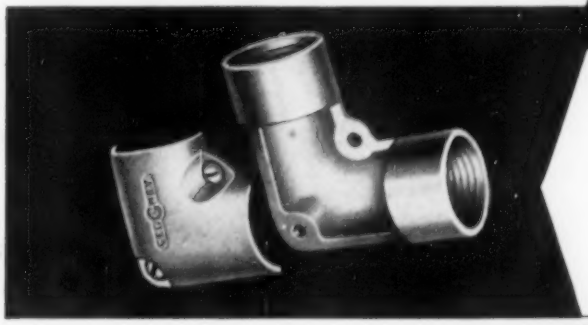
90° CORNER ELLS

Fitted with gasketed cover. Both ends female. Made of malleable iron, cadmium plated. Available in a full range of sizes from ½" to 2".



90° CORNER ADAPTERS

Fitted with gasketed cover. One end male, one end female. Made of malleable iron, cadmium plated. Your choice of sizes from ½" to 2".



CORNER PULL-IN CONDUIT ELLS

Today's top specification for space-saving, machine wiring, easy wire pulling. Malleable iron, cadmium plated. Sizes run from ½" to 2".

GEDNEY FITTINGS FIT

GEDNEY
ELECTRIC COMPANY

GEDNEY

RKO BLDG. • RADIO CITY • NEW YORK 20
Foundry, Factory and Shipping Point: Terryville, Conn.

WHOLESALE PRICE INDEX

Product (1947-49=100)	Aug. 1956	July 1956	% Change	Aug. 1955	% Change
1. Copper Wire, bare	172.8	172.8	0.0	155.3	11.3
2. Building Wire, type RH-RW	156.3	156.3	0.0	132.1	18.3
3. Non-metallic Sheathed Cable	112.9	112.9	0.0	89.2	26.6
4. Varnished Cambric Cable	169.5	174.3	—2.8	156.2	8.5
5. Flexible Cord type SJ	150.2	150.2	0.0	126.3	18.9
6. Lighting Panelboard, fuse type	124.0	119.2	4.0	121.6	2.0
7. Lighting Panelboard, circuit breaker type	132.8	127.4	4.2	131.1	13.0
8. Safety Switch, 2 pole, type A, 250-volts	162.8	158.5	2.7	157.8	3.2
9. Safety Switch, 3 pole, type C, 575 volts	167.4	164.3	1.9	150.7	11.1
10. Air circuit breaker, 250 volts	166.4	166.4	0.0	142.3	16.9
11. Power Panel, fuse type, 250 volts	137.4	133.2	3.2	129.8	5.9
12. Power Panel, circuit breaker type	143.2	138.8	3.2	134.8	6.2
13. Motor Control, a.c., 25-30 hp., 400-440 volts, combination starting switch	160.9	160.9	0.0	145.6	10.5
14. Motor Control, a.c., 25-30 hp., 220 volts	151.8	151.8	0.0	137.4	10.5
15. Motor Control, a.c., 50 hp., 440 volts	176.9	176.9	0.0	146.5	20.8
16. Motor Control, a.c., 75 hp., 440 volts	152.6	152.6	0.0	138.1	10.6
17. Motor Control, d.c., 110 hp., 239 volts	179.0	179.0	0.0	153.2	16.8
18. Renewable Cartridge Fuse, 250 volts	126.0	126.0	0.0	115.7	8.9
19. Non-renewable Cartridge Fuse, 600 volts	127.9	127.9	0.0	121.4	5.4
20. Plug Fuse, 125 volts, non-renewable	111.4	111.4	0.0	105.3	5.8
21. Motor, d.c., 1/6 hp., 115 volts	158.2	158.2	0.0	142.8	10.8
22. Motor, a.c., 1/4 hp., 110-115 volts	105.4	105.4	0.0	108.2	—2.6
23. Motor, a.c., 1/2 hp., 220-240 volts	111.8	111.8	0.0	109.6	2.0
24. Motor, a.c., polyphase, induction, 3 hp., open sleeves bearing	134.3	134.3	0.0	125.9	6.7
25. Motor, a.c., polyphase, induction, 3 hp., ball bearing	134.6	134.6	0.0	128.3	4.9
26. Motor, a.c., polyphase, induction, 10 hp., open sleeve bearing	145.8	145.8	0.0	123.8	17.8
27. Motor, a.c., polyphase, induction, 10 hp., ball bearing	143.9	143.9	0.0	124.3	15.8
28. Motor, d.c., 5 hp.	176.2	176.2	0.0	141.6	24.4
29. Fan, under 12 inches	112.4	112.4	0.0	113.0	0.5
30. Fan, propeller type, 24-30 in. wheel diameter, direct connected	166.4	166.4	0.0	147.4	12.9
31. Drill, production line, 1/4 in.	120.9	120.9	0.0	121.5	0.5
32. Drill, production line, 1/2 in.	116.3	116.3	0.0	114.3	1.7
33. Saw, production line, 6-8 in.	103.1	103.1	0.0	100.6	2.5
34. Pliers, 6-in., long nose	186.0	178.2	4.4	171.9	8.2
35. Lamp, 60-watt, 110, 115, 120 and 125 volts. Inside-frosted	147.2	147.2	0.0	147.2	0.0
36. Distribution Transformer, 15 kva.	130.5	130.5	0.0	130.5	0.0
37. Distribution Transformer, 45-50 kva.	122.4	122.4	0.0	122.4	0.0
38. Dry Type Transformer, 15 kva.	136.8	136.8	0.0	122.9	11.3
39. Dry Cell Battery, flashlight, type D	149.3	149.3	0.0	149.3	0.0
40. Dry Cell Battery, portable radio "B" pack 67 1/2 volts	136.4	136.4	0.0	123.4	10.5
41. Dry Cell Battery, general purpose, No. 6 type 1 1/2 volts	152.3	152.3	0.0	140.1	8.7
42. Voltmeter, portable type, 3 1/2-6 1/2 inches, 0-300 volts	178.6	178.6	0.0	164.8	8.4
43. Ammeter, portable type, 4-6 1/2 inches	169.9	169.9	0.0	157.5	7.9
44. Watt-meter, for instrument transformer, 100-150 volts	155.5	151.2	2.8	138.1	12.6
45. Toaster, automatic, "pop-up"	90.3	90.3	0.0	102.3	—11.6
46. Iron, under 4 pounds	95.5	95.5	0.0	104.6	—8.7
47. Cooking range, standard size	102.4	101.5	0.9	100.6	1.8
48. Washing Machine, non-automatic, wringer type	109.4	108.6	0.7	107.5	1.8
49. Washing Machine, automatic	103.0	98.9	4.1	98.7	4.4
50. Ironer, table model	117.4	117.4	0.0	114.3	2.7
51. Ironer, portable model	113.8	113.8	0.0	111.3	2.2
52. Vacuum Cleaner, upright	109.7	109.7	0.0	107.7	1.9
53. Vacuum Cleaner, tank	99.2	99.2	0.0	105.7	—6.1
54. Refrigerator, capacity 7.4-9.5 cubic feet and over	97.9	97.9	0.0	100.8	—2.9
55. Home Freezer Chest, 8-12.4 cubic feet	95.8	95.8	0.0	98.9	—3.1
56. Water Heater, 52 gallon tank, 230 volts a.c.	101.1	101.1	0.0	106.4	—5.0
57. Radio, table model	89.0	89.0	0.0	85.0	4.7
58. Radio, console model, radio-phonograph combination	99.9	99.9	0.0	97.8	2.1
59. Radio, portable model	91.3	91.3	0.0	87.4	4.5
60. Television, table model	67.3	67.3	0.0	67.9	—0.9
61. Television, console model	70.0	70.0	0.0	68.9	1.6
62. Radio-television-phonograph combination	75.9	75.9	0.0	75.3	0.8

All % changes are increases. Decreases are indicated by minus sign.

Source: *Bureau of Labor Statistics*

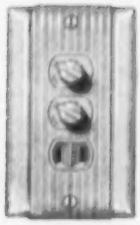
he's reaching for... the **Best ELECTRICAL TAPE...**

ACCURATE TAPE

FRICTION, RUBBER SPLICING, and PLASTIC TAPES

ACCURATE MANUFACTURING COMPANY
Garfield, New Jersey

WORLD'S LARGEST EXCLUSIVE MANUFACTURER OF ELECTRICAL TAPE



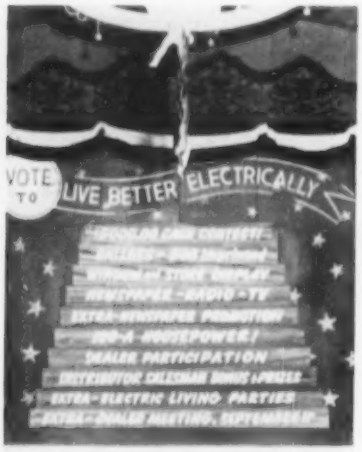
Sometimes you never see your customer. Sure, the order in the warehouse came from a contractor who has been dealing with you for years. But often he's following the instructions from a man whose name you never know – and the instructions say "ROTO-GLO." That's because Pass & Seymour has aimed the most comprehensive advertising campaign in wiring device history at the man who counts *most – the end consumer*. He's the man who pays the bills. He's the man who *must* be satisfied. And he's the man who's sold on ROTO-GLO. National advertising and publicity in every top home magazine has made ROTO-GLO the most talked about switch among homebuyers . . . has created an overwhelming number of requests for Pass & Seymour's booklet, "*Modern Electrical Living.*"

Every electrical contractor, every architect, builder and engineer is constantly being reached by trade magazine advertising and direct mail. They all know the outstanding merits of ROTO-GLO – the modern switch that glows in the dark, is whisper quiet, and has exclusive roto-action . . . that costs only a few pennies more than old-fashioned switches.

FREE MERCHANDISING AIDS to help you cash in on ROTO-GLO's tremendous popularity . . . NEW ROTO-GLO mobiles, counter-cards, switch tags and newspaper advertising mats are available for distribution to your customers. For your supply, write today to Dept. EW-19.

P&S® PASS & SEYMOUR, INC.
SYRACUSE 9, NEW YORK
71 Murray St., New York 7, N. Y. 1229 W. Washington Blvd., Chicago 7, Ill.
In Canada: Renfrew Elec. & Refrig. Co., Ltd., Renfrew, Ontario

Philadelphia Kicks Off LBE 'Poll'



Philadelphia's "LBE Party" invited 316 distributor salesmen to take a stand on its fall platform.

PHILADELPHIA—In one of the political season's first "rallies," 316 distributor salesmen decided as delegates to "Vote to Live Better Electrically" at an August 27 kickoff meeting.

Representing 29 wholesale firms, the salesmen were the first to hear the story of the fall 1956 LBE campaign of the Electrical Association of Philadelphia, said J. A. Morrison, managing director. The theme was political throughout, and the chief "promise" was a $5,000 consumer essay contest.

The campaign is built around the contest, which runs October 1 to November 17. Picking up entry blanks at participating dealers, consumers are asked to complete the sentence, "I cast my vote for (insert name of appliance) to Live Better Electrically because . . .," in 50 words or less. The top prize is $2,500, with other awards of $500 and $100, and 76 other prizes of $25 each.

On September 11, the program was officially announced to 1,200 dealers and their wives at a similar banquet. With Association, distributor and utility support, they are expected to put the campaign over the top.

Each dealer pays $15 to participate; if ten entries are submitted from his store, he gets his "campaign contribution" back. Dealers get a four-color counter display, each with 300 imprinted entry blanks, and window display material. Other backing includes Philadelphia daily newspaper ads, with the dealer's listing, and a 400-line ad in a selected neighborhood newspaper.

Both distributor salesmen and dealers are eligible for campaign awards. Distributor salesmen get $4 for every dealer they sign up, with four prizes (first: $50) for the salesmen who sign up the greatest number. Dealer prizes, based on the winning contest entries, range from $500 for first down to 76 $5 honorable mentions.

The LBE campaign ("this powerful ticket") is sponsored by the Association, and will receive heavy utility and manufacturer local advertising support. There's also a strong tie-in with The Philadelphia Electric Co.'s "100-A Housepower" program, including additional newspaper ads listing 100-A contractors and dealers.

Other promotional aids include electric cooking schools and, for dealers, materials for "electrical living parties."

(More Programs on page 100)

Cleveland Holds AW Rally

DISTRIBUTORS played a leading role in the Adequate Wiring rally held by the Electrical League of Cleveland to dramatize the potential of AW and other industry-wide programs. Attending were 150 representatives, including distributors, contractors and the utility. At the speaker's table (from left): S. E. Strunk, (League secretary-manager); contractor H. C. Morlock; W. T. Clark (Cleveland Electric Illuminating Co.); J. U. Walker (president, Midland Electric Co., and League head); P. B. Leff (president, H. Leff Electric Co. and chairman of AW rally); R. C. Hienton (utility vice president); P. Howard Farley (NECA); and Bill Jirovec (local NECA manager). President Walker presented three contractors with testimonial awards for their AW certification work.

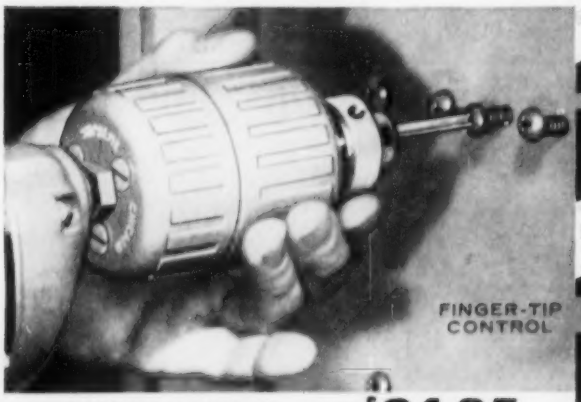
Greatest new tool in years for maintenance and production

a high quality, low cost
REVERSIBLE
SPEED REDUCER

Fits all portable drills . . . reduces speed, increases torque seven times. Ask your distributors to show you the . . .

Supreme Versamatic®

PROFESSIONAL MODEL
No. 4000-P with Yankee-Type Bit Holder



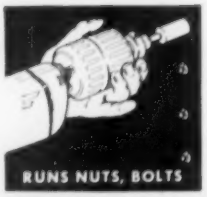
COMPLETE 14-PIECE SET . . . ONLY $24.95

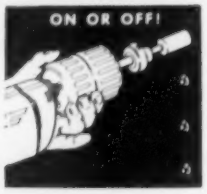
Engineered and manufactured by the makers of

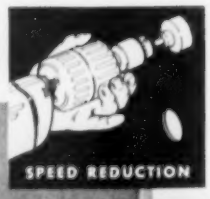
Supreme Chucks
BRAND

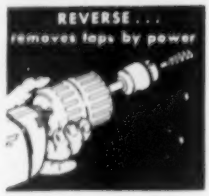
The line that's UP FRONT on America's leading power tools

SUPREME PRODUCTS CORPORATION, 2222 S. CALUMET, CHICAGO, ILLINOIS









INDUSTRY-WIDE PROGRAMS

Continued from page 99

Plans Shaping Up For Wide NEW Push

NEW YORK—Big plans—"much larger than might reasonably have been expected for such a young program"—are firming up for the second annual National Electrical Week, according to A. W. Hooper, New secretary.

NEW—Feb. 10-16—is an opportunity for "the industry to spotlight itself," Hooper adds. "It now has nine sponsors (*see below*) and many endorsing organizations, and further active support is expected."

Among the NEW promotions now shaping up:

- A plan package—how to tie-in with NEW and the materials to do it—will be out in mid-October.
- Manufacturers will use TV and radio extensively. Network shows are now being planned by General Electric, Westinghouse, Allis-Chalmers, DuPont, Reynolds, Motorola, Zenith and others. *Live Better Electrically* will also tie-in (*see below*).
- Many manufacturers are setting open houses for employees and customers. Some are considering new product announcements during NEW.
- Local activities include utility open houses, league NEW luncheons and inspector groups' use of home electrical inspection reports in schools.

NEW NOTES:

NEW YORK—Live Better Electrically's next promotional push will be coordinated with National Electrical Week.

The feature of the program kickoff tentatively will be the largest—70 locations—closed circuit telecast in history. It will be sponsored, as was the original LBE kickoff earlier this year, primarily by local utilities.

WASHINGTON, D. C.—The 1957 observance of National Electrical Week will have the full support of the International Brotherhood of Electrical Workers, the ninth major group in the electrical industry to endorse the event.

"We are glad to join with the eight trade associations of the industry in the sponsorship and support of this annual observance," stated Gordon M. Freeman, international president of IBEW, in announcing the action.

Home Fixture Sales Are Jumping: AHLI

NEW YORK —The residential fixture business is jumping—and distribu-

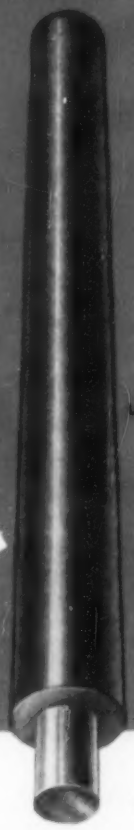
Continued on page 102

. . . I *recommend* CLIFTON Current Carrying Products *every chance I get!*

Here is the famous CLIFTON trio to carry the current from the pole to its end use in the building. Each is made for use anywhere in the country and is unaffected by atmospheric changes and extremes of heat and cold. So wherever you live and work the CLIFTON trio protects your jobs like nothing else.

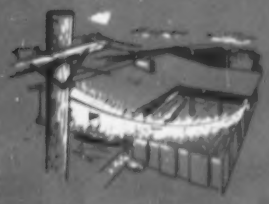
CLIFTX Non-Metallic Sheathed Cable is perfect as a general purpose wiring for carrying the current load throughout the building. Protected against moisture and rot, CLIFTX is made with tightly braided fibreglas covering saturated with an asphalt compound, silver finished, and further protected with a thin coating of high melting point wax.

Cliftx Non-Metallic Sheathed Cable



Clifton Service Entrance Cable

CLIFTON Unarmored Service Entrance Cable in 2 and 3 conductor is absolutely impervious to moisture. Special rubber coated "Mylar" tape insures a long useful life.



Cliftall UF Cable

CLIFTALL UF is an all-purpose cable, designed for circuits through masonry, wall tiles or imbedding in plaster in moist, damp or corrosive locations. CLIFTALL, available in 1, 2 or 3 conductor, is insulated with 2 layers of high quality thermoplastic, separated with reinforced fibreglas.

Your Best 2 Word Specification
CLIFTON CONDUIT

Other CLIFTON *Quality Products:*
CLIFTON Plastic Covered Steel Conduit
CLIFTON Armored Cable · CLIFTON Building Wire TW-R-RHRW-S-SJ
CLIFTON Elbows and Couplings · CLIFTON Rigid Conduit
CLIFTON EMT · CLIFTON Flexible Steel Conduit

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For Full Information

Warehouses Throughout the Country.

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WIRE — CABLE — RIGID CONDUIT — ELECTRIC METALLIC TUBING — CLIFTALL UF

Easy to sell this speedier Power Drive

that takes the work out of conduit threading, cutting, reaming . . .

RIDGID 400A

with wrenchless SPEED CHUCK

A work-saver for your contractor customers! Lots of ready power turns conduit, pipe or rod for hand threaders, cutters, reamers—even up to 12" geared tools with drive shaft. New Speed Chuck opens and closes easily, guaranteed to grip tight forward, reverse; jaws have replaceable insert teeth for longer life. Light, compact, portable—built for years of service. Bench, stand and wheel-stand models. Pre-sold by advertising to your customers—write for complete profit data today!

RIDGID 504 quick-opening threader for power drive use—self-contained dies for 1" to 2" pipe or conduit.

"Threaded Pipe—It's Tight—It's Best—Costs Less"

RIDGID
Work-Saver Pipe Tools

The Ridge Tool Company • Elyria, Ohio, U.S.A.

INDUSTRY-WIDE PROGRAMS

Continued from page 100

tors and manufacturers are taking concrete steps to keep it that way.

Figures on the increase in fixture sales were recently publicised—in connection with October, American Home Lighting Fixture Month—by Ted Cox, AHLI managing director.

"The average number of fixtures per home," Cox said, "has increased from nine to 10.9 during the past year alone, according to the General Electric Large Lamp department. And the list value of these fixtures has gone from $32.14 in 1955 to $44.10 now.

"The October promotion, in which a number of distributors are participating, will mark a new high level in the rapidly developing merchandising activity of the industry," he added. "Despite a 20 per cent drop in new construction during the first half of 1956, residential fixture sales went up more than 12 per cent."

• **Planning**—In early September, a distributor committee met under AHLI's auspices to set plans for keeping this sales ball rolling.

Four distributors, members with manufacturers of AHLI's Advisory committee, discussed ways and means of using the program locally. Much emphasis at the meeting was on GE's "Light for Living" sales training program, which is slanted toward distributor salesmen.

Members of the committee, who said that this was a long-range project, include T. H. Wells, Jr., Wells Electric Supply Co. Inc., Birmingham; Max Tepper, Tepper Electric Supply Co., Champaign, Ill.; Charles E. Argast, Farrell-Argast Electric Co., Indianapolis, and W. R. Powell, General Electric Supply Co., Bridgeport.

New Arizona AW Bureau

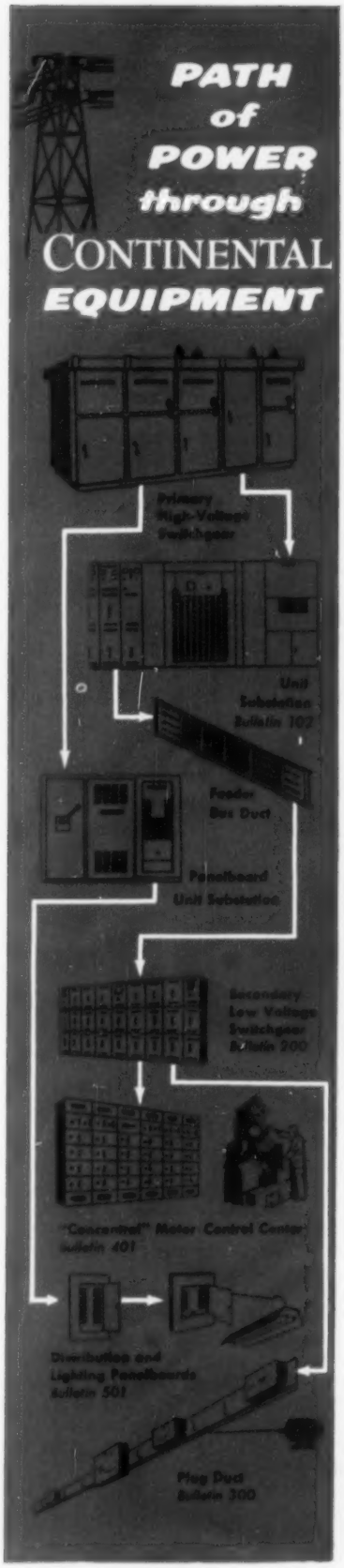
PRESCOTT, ARIZ.—The Northern Arizona Adequate Wiring Bureau was licensed on September 5. Distributors were represented on the sponsoring committee by Clifford Kinfley of Tarr, McComb and Ware. Other representatives included dealers, contractors, the utility, electrical inspectors and a building contractor.

Housepower Beefs Up Local Training Programs

NEW YORK—Over 100 persons, most of them utility "coordinators," attended two seminars held last month to spell out teaching techniques for local use with the Housepower sales training course.

The six-hour course, which has already been used in some cities, is de-

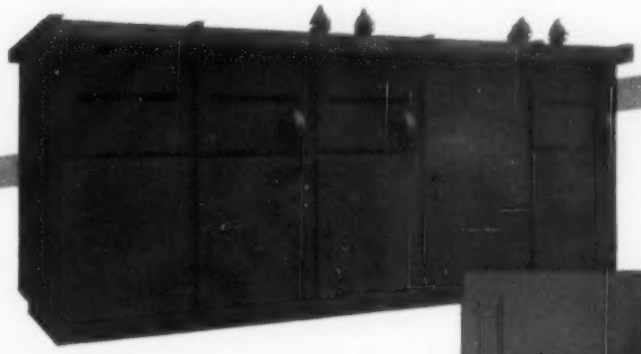
Continued on page 104



get modern, economical protection with

CONTINENTAL

PRIMARY HIGH-VOLTAGE SWITCHGEAR



Compact, rugged, easily installed CONTINENTAL Primary High-Voltage Switchgear provides vital protection and completely safe interruption at moderate cost. Sturdy construction and famous CONTINENTAL craftsmanship assure long, reliable service. Assembly includes provision for future additions, and can be arranged to provide for utility company metering compartment and main oil circuit breaker. Custom designed assemblies for indoor or outdoor use.

***Featuring* CONTINENTAL AIR INTERRUPTER SWITCHES**

- Air break disconnect with continuous and interrupting ratings to 600 amp. at 15 KV
- Can be safely opened under load; interrupts all currents up to its continuous rating
- Front operated, 3-pole, single or double throw
- Doors key interlocked
- Wired glass window for position check

Compare for yourself. Write for detailed specifications today.

SHIPMENT: 6 WEEKS*

CONTINENTAL

ELECTRIC EQUIPMENT COMPANY

209 West 4th Street Cincinnati 2, Ohio

*Standardized units only, not requiring approval drawings. If approval drawings are required, add 2 weeks.

BIG CABLES

BRONCO

TYPES W & G 66

NOW BEING MADE IN SIZES BIGGER THAN 1¾" IN DIAMETER

Write for new FREE catalog:

WESTERN INSULATED WIRE COMPANY

Los Angeles 58, California

INDUSTRY-WIDE PROGRAMS

Continued from page 102

signed to train contractors for more effective sales of rewiring. The "teacher's schools" were conducted in New York and Chicago by Porter Henry, who helped develop the basic NECA course.

Wholesalers are being encouraged to buy and present the course to contractors, especially in areas where utilities do not, according to Frank Kitzmiller, Jr., national Housepower manager. The $250 course includes materials for 20 students, and can be presented in either three two-hour classes or in six one-hour sessions.

Housepower Notes: Square D. Co., giving continued support to the program, placed institutional ads in Labor Day editions of two regional union papers. They were sponsored by Distribution Equipment division . . . Contest entries totaled 260,000 on Sept. 20.

NAED To Develop "All-Program" Plan

NEW YORK—Development of a suggested plan for local distributor tie-ins with industry-wide programs is underway and should be available in October, according to Arthur W. Hooper, NAED's executive director.

Working on the plan—which will bring together local promotional ideas for Adequate Wiring, Live Better Electrically, Housepower and other programs—is the Adequate Wiring committee. It is headed by L. R. Klose III, L. R. Klose Electric Co., Kalamazoo, Mich.

Last month, NAED made an initial mailing on informational material and suggested tie-ins with LBE's October campaign.

N. California Lists 79 Certified Jobs

SAN FRANCISCO—After completion of eight training schools for wholesaler's salesmen and contractors, the Northern California Electrical Bureau counts 79 certified jobs under the Certified Lighting Program.

Hayward and San Francisco lead in the number of jobs, with 11 and 9 respectively. Total number of fixtures installed on the 79 jobs: 3,391.

Over 150 students have been graduated from the courses, which have been held in San Francisco, Oakland, San Mateo, San Jose, Stockton and Fresno. Thirty-five northern California cities have been represented by students.

On September 1, a CLP contest for contractors got underway. Based on

Continued on page 106

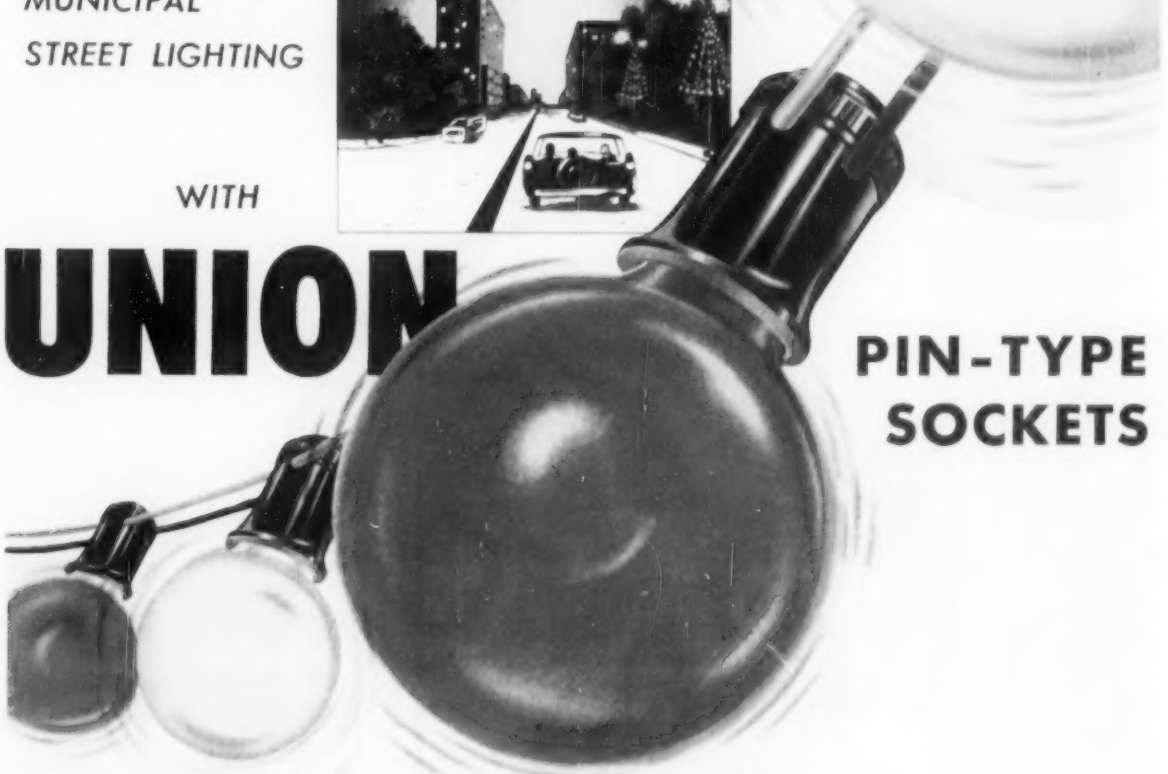
Holiday

MUNICIPAL
STREET LIGHTING

WITH

UNION

PIN-TYPE SOCKETS



TIME PROVEN—TIME SAVING

Supplied with hand wrenches for on-the-job assembly. Available on streamers or in stars for large installations.

Depend on UNION for quickest (same day) delivery and unsurpassed quality to insure your profits.

Sold through preferred distributors everywhere.

UNION INSULATING CO.
Parkersburg, West Virginia

PLUS VALUES in a FURNAS ELECTRIC DISTRIBUTORSHIP

ARE THESE PLUS VALUES IN YOUR PRESENT MOTOR CONTROL FRANCHISE?

1. DISCOUNT STRUCTURE — permits profitable sales to all classes of customers including Original Equipment Manufacturers.
2. IN-BETWEEN SIZES—to help you make more sales. Now with less dollars you can carry larger, more representative stock.
3. EXCLUSIVE FEATURES—the control with "Dual Seal" dual voltage magnet coil. One coil does the work of six.
4. QUALITY FEATURES—Silver Cadmium oxide contacts for long life. Plaskon Alkyd arc box for high dielectric strength.
5. ATTRACTIVE POLICY—clearly defines company distributor relationship.
6. PRICE PROTECTION—an agreement that offers distributors protection on both rising and falling prices.

INVESTIGATE

If you are not now enjoying these plus values and advantages, write or phone for Distributor Portfolio 5412—Furnas Electric Company, 1069 McKee Street, Batavia, Illinois.

A14

FURNAS ELECTRIC COMPANY
BATAVIA, ILLINOIS

SALES REPRESENTATIVES IN ALL PRINCIPAL CITIES

INDUSTRY-WIDE PROGRAMS

Continued from page 104

point awards, the contest features four prizes totaling $350. Points are given for issued and completed certificates of conformance, for ft-c calculations above minimum requirements and for "plus-features" of finished jobs.

CLP Sets 1957 Plans, Seeks New Bureaus

NEW YORK—Expansion of local operating bureaus took precedence at the 1957 planning meeting of the Certified Lighting Program executive committee. It was held in conjunction with the Illuminating Engineering Society conference in Boston September 19, CLP manager Lawrence Messick announced.

Following up on expansion plans, several potential bureaus were represented on October 2 at an informal luncheon-discussion in Detroit. Nearly 20 present and potential bureau heads were present to discuss strong and weak points of the local program. This lunch was held in conjunction with the International Association of Electrical Leagues meeting.

CLP Notes: A Fresno, Calif., office building owner, whose eight-story property was recently certified by the Northern California Electrical Bureau, has been granted permission to use the CLP symbol on his letterhead. This was the first such request; permission will be granted, CLP headquarters says, if use of the symbol does not imply sponsorship by the bureau . . . A new on-the-job sign has been developed for use by contractors on CLP-certified jobs. It stresses the motto, "For Your Greater Seeing Comfort."

Look Magazine Sets 1957 AW Competition

NEW YORK, N. Y.—Look Magazine has announced its third annual competition for Adequate Wiring Awards for appliance distributors, appliance dealers, contractors and utility companies.

The 1957 awards will be presented at the Conference of the National Adequate Wiring Bureau in Chicago, Ill., Feb. 28-March 1.

All entries, including details and documentation of the firm's adequate wiring promotion activities, must be submitted to Adequate Wiring Competition, Look Magazine, not later than Feb. 1, 1957, according to Dick Harmel, merchandising manager of the publication.

Last year's distributor winner was the Noland Co., Newport News, Va. (EW—Apr. '56, p. 80).

Profits seem to grow on trees...

when you push SANGAMO TIME SWITCHES!

(And you'll gain more satisfied customers too!)

Push Sangamo Time Switches and reap ready profits! Here's why:

You make more money on every Sangamo Time Switch you sell because Sangamo offers a bigger profit per unit.

You have a fast turnover. Actually, you don't have to push Sangamo Time Switches very hard. They're easy to sell—they have ready customer acceptance . . . a reputation for quality that's second to none. They're backed by the biggest advertising program in the industry.

And you gain satisfied customers. Satisfied customers are the backbone of every successful electrical distributor's business. When you sell a Sangamo Time Switch, your customer won't be back with a complaint about faulty operation or failure. Sangamo Time Switches are rugged . . . they stand rough handling. They're engineered quality all the way through . . . just let your customers compare them with other time switches . . . they'll see the difference.

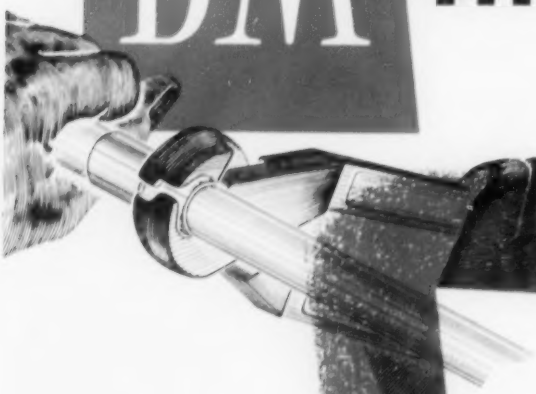
Write for information on the complete Sangamo line—the line with features to solve any time control problem.

SANGAMO ELECTRIC COMPANY
SPRINGFIELD, ILLINOIS

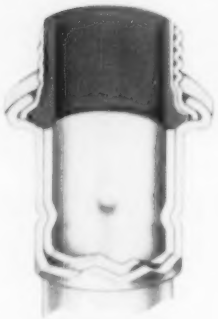
ST56-6

B-M INDENTER TYPE FITTINGS

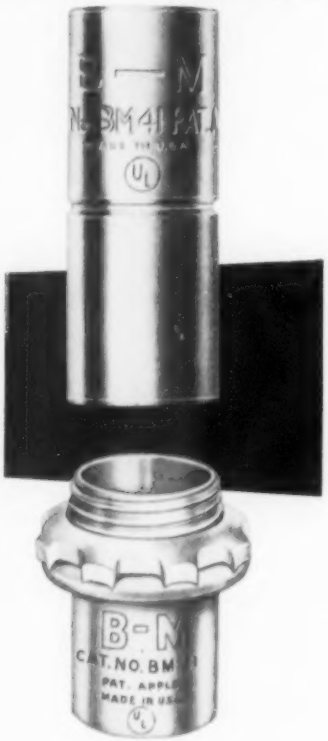
FOR E.M.T. Concrete-tight



Red Throat
Insulated Connector



Red Throat
Cross section



Briegel, the Original Indenter Fittings are neater in appearance, easier and faster to use. Installation is simple and less expensive. Two quick squeezes sets them forever. Try B-M Indenter Fittings and get more profits from each job.

All B-M Indenter Fittings are U.L. Approved as concrete-tight and for general use (File Card E10863). Also comply With Federal Specifications W-F-406.

BRIEGEL METHOD TOOL CO.
GALVA • ILLINOIS

Warehouse Stocks in Principal Cities for Immediate Delivery!

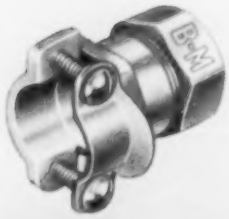
B-M COMPRESSION TYPE FITTINGS
FOR E.M.T. Rain-tight

SIZES FROM ½" to 2"

SIZES FROM ½" to 2"

SIZES ½" ¾" 1"

SIZES ½" ¾" 1" 1¼"



SIZE ½"

BRIEGEL METHOD TOOL CO.
GALVA • ILLINOIS

WHAT'S NEW WITH YOUR CUSTOMERS

Outline of Design Notes on Hospital Electrical Systems

These items were digested from a recent issue of Electrical Construction and Maintenance, a McGraw-Hill publication. Their purpose: to alert you to developments and trends reported in the operation of two of your biggest customers — electrical contractors and plant electrical men.

Electrical designers will be able to make use of a handy reference outline of the basic electrical requirements of modern hospitals prepared by Harry P. Swing, of The Ballinger Co., Philadelphia, Pa., architects and engineers.

The most desirable characteristics of a hospital wiring system are: *safety, reliability* and *durability*. These are the three most important among six leading characteristics. In order of importance the six are as follows:

• **Safety** — The National Electrical Code and any local code must be followed. Article 500 of the Code, "Hazardous Locations" and Bulletin 56 of the National Fire Protection Association "Recommended Safe Practice for Hospital Operating Rooms" should be studied by both the designer and the hospital staff.

• **Reliability**—Certainty of electrical service can be attained by one of the following arrangements: (1) two utility company services, each independent of the other and each capable of carrying the entire load; (2) one utility company service for normal load and one utility service independent of the normal service, of sufficient capacity to carry emergency load; and (3) one utility service for normal load and one standby generator for emergency load.

The extent of stand-by provisions will depend on the probable frequency and duration of outages of the utility system. But, in any case, the emergency service should cover the following essential loads: surgical and delivery suites, stair lighting, partial corridor lighting, exit signs, fire alarm system, boiler plant operation, food refrigeration, certain laboratory processes, certain elevators (at least one), incubator and sterilizing and cooking.

These critical loads should be supplied through an automatic throw-over switch. Special consideration should be given operating room lighting, to provide for supply during time lapse in generator starting.

The prime mover for the emergency generator is usually a gasoline or diesel engine. Gasoline will start more easily, while diesel is less hazardous. Both require a battery for starting which *must be kept charged at all times*.

Reliability of the interior wiring system can be further increased by splitting the loads within given areas between two feeders.

• **Durability**—Equipment and materials should be of the very best quality to insure reliability of operation and durability for long periods of service.

• **Appearance**—The very nature of a hospital as an institutional building demands that more than casual attention be given to clean, finished appearance of electrical equipment. This condition helps promote general cleanliness.

• **Expansibility**—If the ultimate project will be constructed in stages, design must be arranged to permit future expansion with minimum change of any existing systems.

• **Flexibility**—This factor normally is not too important since the complexity of a hospital requires a definite space permanently assigned to each piece of equipment.

Significance to you: Just a brief outline, but it serves to show how knowledge of the problems involved in highly specialized installations can go a long way toward finding the answers to customers' electrical needs.

Mobile Two-Way Radio Speeds Maintenance, Materials Handling

Receiver-transmitters on a fleet of fork-lift trucks have doubled the usefulness of the vehicles for one firm, cut dispatching time by 80 per cent while cutting maintenance and production bottlenecks.

Two-way radio communication between cruising vehicles and a central point has been used successfully for many years by police cars and taxi cabs. More recently, this method has been adopted by many companies operating a wide variety of vehicles involved in maintenance and protective work, inventory and warehouse control, materials handling and similar large-area services. In fact, this efficient means of communication is proving beneficial even within the boundaries of single industrial plants and large construction projects.

For example, take the case of radio station KB 6809, operating on 154.57 megacycles and licensed under author-

Continued on page 110

LIGHT . . .

ELECTRICAL RIGID CONDUIT, made by Alcoa, is light and strong. It goes up easier and faster . . . with less man power, lighter supporting members. It's easier to handle, transport, store. You can bend, thread and cut it with present equipment.

Once you understand *all* the advantages of rigid conduit made from Alcoa® Aluminum, you'll not be satisfied with anything else.

It's good looking . . . presents a cleaner, more attractive appearance.

It resists corrosion. Weather, moisture, general industrial fumes and other unfavorable conditions can't destroy it or mar its good looks.

It's nonmagnetic, nonsparking . . . has Underwriters' Laboratories approval. Because it is nonmagnetic, there's less voltage drop. Longer runs are practicable . . . or smaller wires. And Alcoa Aluminum Rigid Conduit is ideal for separating conductors, regardless of load.

For complete information, write Aluminum Company of America, 2329-K Alcoa Bldg., Pittsburgh 19, Pa.

Your Guide to the Best in Aluminum Value

THE ALCOA HOUR
TELEVISION'S FIRST LIVE DRAMA
ALTERNATE SUNDAY EVENINGS

ity of the FCC. This system belongs to the Standard and Pressed Steel Co. of Jenkintown, Pa., and it serves a 33-acre plant where some 2,000 employees turn out about 160,000 pounds of special metal fasteners and shop equipment daily.

This two-way system is used for the purpose of keeping a central dispatcher in constant touch with operators of fork-lift materials handling trucks in various parts of the plant. It is now possible to locate and dispatch a truck to any pick-up point within five minutes (whereas it formerly required from 30 to 45), and after a year's operation, it has been found that trucks are handling 50 per cent more work.

These advantages have eliminated bottlenecks related to materials handling, speeded deliveries of raw materials and finished products from section to section, drastically reduced delays, boosted production and also improved morale of truck operators and job foremen.

Significance to you: A distributor often can sell this equipment to regular industrial customers.

Proper Lighting Helps Warehouse-to-Office Transition in Chicago

Near Chicago's Loop, an antiquated 15-story warehouse is being converted into pleasant, comfortable rental office space. Already three floors of the Butler Brothers building, each 56,000-sq ft in area, have been remodeled.

"Before" and "after" photos show the most striking change to be installation of troffer fluorescent lighting.

Cooperating in the lighting system design were Hultgren Electric Co., Chicago, project electrical contractor; Irving Brooke, consulting engineer; Carl H. Bauer, construction and equipment manager of Butler Brothers engineering department; Milton Radice, chief of fiscal and office administration for the Illinois State Employment Service and Division of Unemployment Compensation, new tenant for the three floors completed thus far.

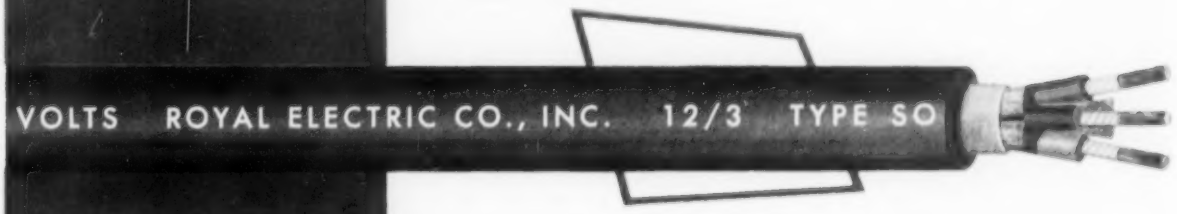
Working from original building drawings and new office plans, this group developed a recessed fluorescent troffer layout that provides a maintained intensity of 50-ft-c in both general office and executive office areas. A suspended acoustical-tile ceiling covers the pipes of the existing and new sprinkler systems, new air conditioning ducts and provides ample space for continuous lines of recessed troffer fixtures spaced on about 8-ft

ROYAL

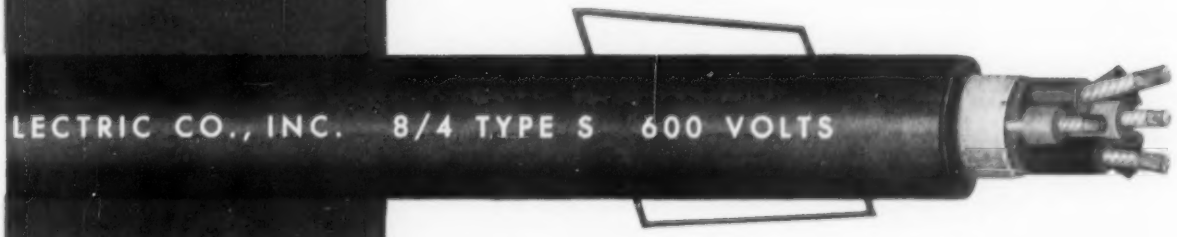
.. YOU KNOW WHOSE IT IS

YOU KNOW WHAT IT IS

WHAT SIZE

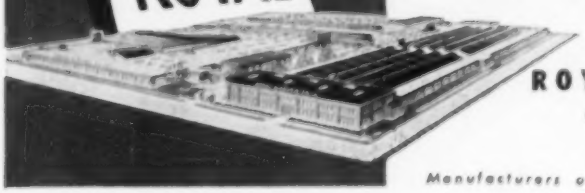


and the VOLTAGE RATING



We're proud to put our name and mark continuously on all ROYAL ELECTRIC portable cord . . . it's easier for you to handle and sell; easier for your customers to use.

ROYAL

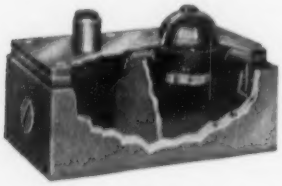


ROYAL ELECTRIC COMPANY, Inc.
General Offices: **PAWTUCKET, RHODE ISLAND**

Manufacturers of **WIRE • CORD SETS • FUSES • WIRING DEVICES**

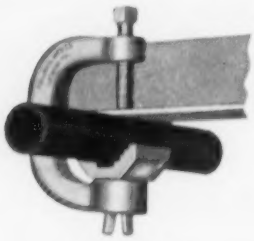
Latrobe *Electrical* Products

"Latrobe" Floor Boxes and Wiring Specialties offer real economy in installation and replacement costs. Their unique design, free of unnecessary parts, means quicker installation and longer service.



Two Gang Adjustable Floor Box

Adjustable Boxes come in single-round or square bodies. Also in square type Single Gang, Two Gang, Three Grang and Four Gang Boxes.



"BULL DOG" PIPE OR CONDUIT HANGER

Sturdy and dependable for hanging pipe to conduit ½", ¾", and 1" to steel beams up to ⅜" thick. Larger sizes for larger pipe.

Latrobe Products

Non-Adjustable Floor Boxes
Adjustable Floor Boxes
Gang Boxes . . . Cover Plates
Junction Boxes . . . Nozzles
Pipe or Conduit Hangers
Insulator Supports
Cable Supports . . . Fish Wire
Staple and Cable Clips

Write for new catalog

Sales Representatives in all principal cities

Fullman Manufacturing Co.
1209-1215 JEFFERSON STREET
LATROBE, PA.

PLANNING COMMITTEE for the southern section convention of the International Association of Electrical Inspectors, scheduled for Oct. 21-24 in Dallas, Tex., meets to discuss activities for the 350 delegates and their guests expected to attend. The Dallas electrical men (left to right) are: Earnest Butcher, past president, NECA; Lawrence Martin, executive manager, NECA; Earl Hoff, Graybar Electric Co., Inc.; A. J. Bommer, general chairman of convention arrangements; Austin B. Watson, Watson Electric Supply Co.; Bob Payne, electrical inspector; and Roy Gay, past president, NECA.

What's New With Customers

centers. Mounting height varies from nine to 11-ft, depending upon floor-ceiling heights. Only in a few instances, where structural conditions dictated, were surface-mounted units used.

The choice of lighting equipment and layout, according to the contractor and engineer, was based upon considerations of quantity and quality of light output desired together with appearance plus ease of installation and maintenance. The troffer units selected met the requirements. A three-part design with quick installation features helped the electricians meet a tight construction schedule—a span of only 4½ months from first planning to tenant moving day.

Total cost of this first project, including lighting, additional electrical facilities, air conditioning and interior remodeling is approximately $1¼ million. Conversion of other floors will follow as tenants sign up.

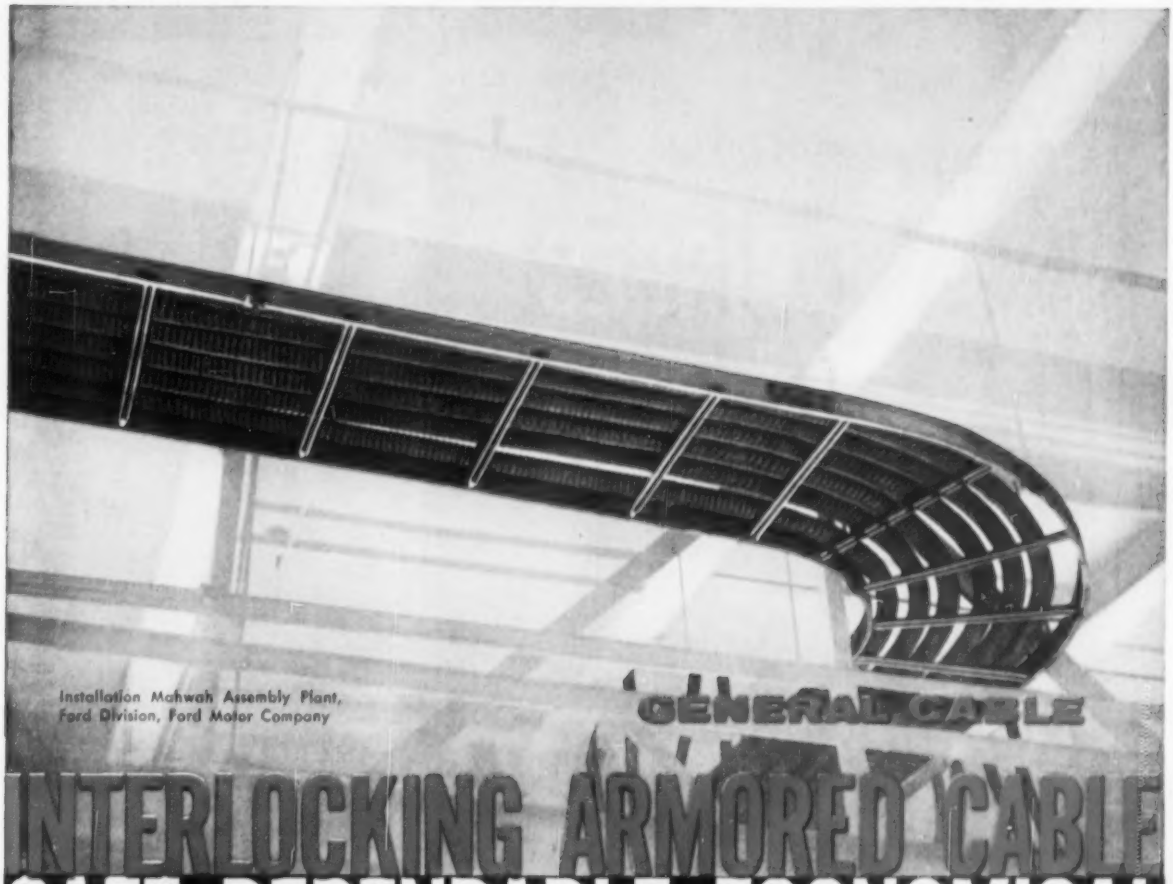
Significance to you: In these days of sky-high construction costs, many a standing building can be renovated and put to producing rental income with a properly thought-out plan for modernization. Key elements in such a program are likely to be good modern lighting and air conditioning, systems which must be coordinated for maximum effect with minimum cost. Team-work between owner, tenant, contractor and distributor is all-important here.

CREDIT SHORTAGE (cont.)

There is encouragement for the prospect that credit restraint can be applied without dire effects in the record made by the Federal Reserve authorities in managing the nation's money and credit supply thus far this year. When, in April, they made credit harder to get by increasing the rediscount rate from 2½ to 2¾ per cent there were widespread alarms that they were disastrously hamstringing business. But the alarms were mistaken. The boom is still rolling right along and, indeed, at such a clip that further credit tightening has been prescribed in the recent boosts to 3 per cent.

It is notable also that the Federal Reserve has carefully refrained so far from using the strongest controls available. It has not raised the required reserves that banks must hold against their deposits. And it has not refused to lend money to the commercial banks, when needed for their reserves —even though it has made its interest charge (re-discount rate) higher.

Between now and Election Day the effects of the latest moves of the Federal Reserve in tightening credit will probably not be sharply discernible enough to make them topics for campaign oratory. That is just as well, for otherwise Federal Reserve operations would be kicked around the political arena, which, of course, is exactly where they don't belong.



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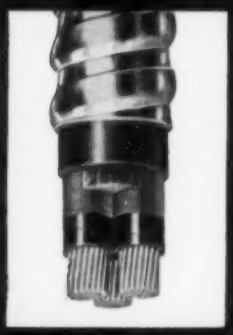

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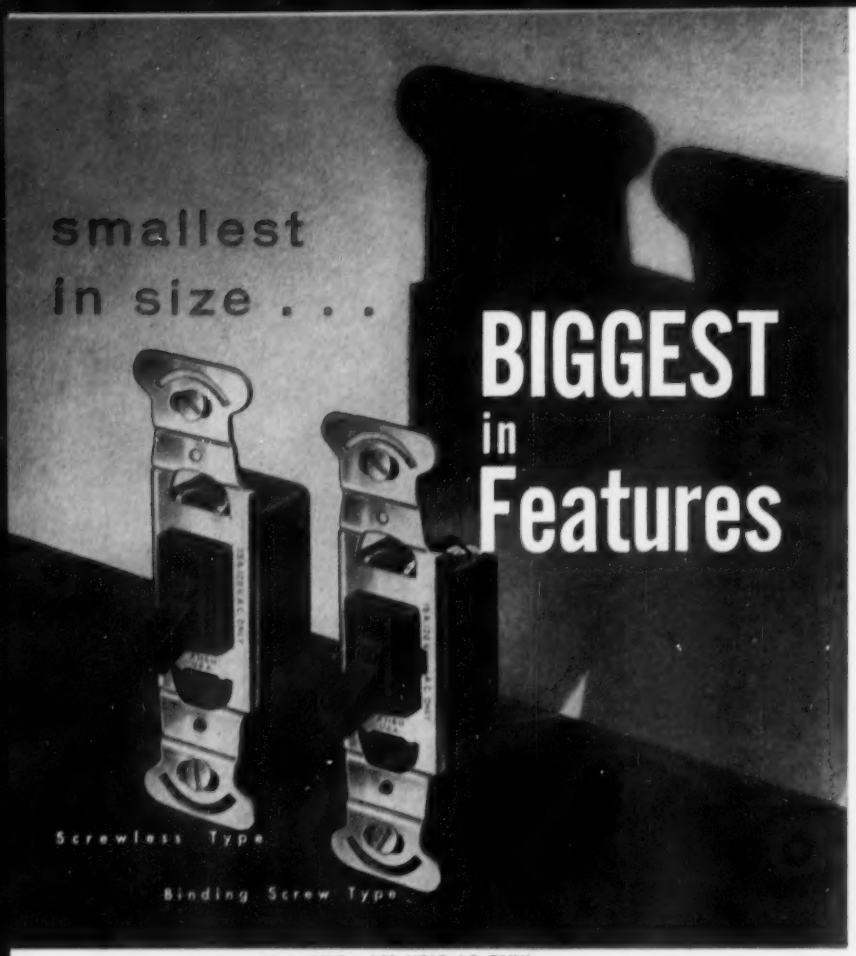

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NAED Western Region Convenes in Phoenix

PHOENIX, ARIZ.—More than 500 members and guests were in attendance when the National Association of Electrical Distributors' Western Region convened at the Westward Ho Hotel here, Sept. 30.

General meeting sessions scheduled for Monday through Wednesday mornings were planned to bring together NAED members from the eight western states, Alaska and Hawaii.

Speakers scheduled to address the convention and their topics are as follows: Ralph J. Brown, president, NAED; W. B. Meek, vice president, NAED—"Let's Talk Business—Western Style"; Carl A. Bimson, president, Valley National Bank, Phoenix, Ariz., —"A Banker's Viewpoint of Our Current Economy"; N. J. MacDonald, president, The Thomas & Betts Co.—"Why Keep It a Secret"; Arthur W. Hooper, executive director, NAED—Report of Executive Director; Charles H. Winship, Jr., vice president, Phelps-Dodge Refining Corp.—"Copper—Its Background and Outlook"; S. J. Rosch, consulting cable engineer, Anaconda Wire & Cable Co.—"Trends in the Electrical Industry"; and H. L. Cramer, manager, agency and construction sales dept., Westinghouse Electric Corp. — "Distribution — An Added Measure of Value."

An additional feature of the Western Region convention was a showing of the association's slide film presentation entitled, "Ten Steps to Better Distribution." This was first shown at the general convention of NAED at Atlantic City, N. J., in June. **Note:** ELECTRICAL WHOLESALING **will carry photographs and a full report on the NAED Western Region convention in the November issue, based on on-the-spot editorial coverage.**

National Electric Opens West Coast Warehouse

PITTSBURGH, PA. — National Electric Products Corp., with headquarters here, announces that it will open a new warehouse in the Vail Field central manufacturing district of Los Angeles on or about Nov. 1.

The new facility, with 25,000-sq ft of floor area, will warehouse electrical distribution systems, fittings and accessories, and will be used only as an extension of factory stocks to serve the company's regular distributors, according to the company.

National Electric also disclosed that it will discontinue production operations at its Torrance, Calif., plant.

NO RUSTY THREADS to worry about with Sherarduct

The threads of Sherarduct are cut *before* galvanizing so that every hill and valley receives the same protective coating of zinc as the tube itself.

And Sherarduct Couplings, the key to a solidly locked, easily fished and thoroughly grounded electrical system, are tapped, then galvanized with the same painstaking care as the Sherarduct itself.

Sherarduct Couplings are carefully designed to permit conduit end to butt inside the coupling, giving strength and rigidity to the system and making a smooth, continuous raceway through which conductors can be drawn easily and without injury.

To find out more about Sherarduct's easy fishing, easy bending and lifetime corrosion protection, write for a free copy of the Sherarduct facts book . . . see why Sherardizing makes Sherarduct galvanized conduit at its best.

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Utica's* New *Select-O-Lock** Wrench...

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UTICA'S new locking adjustable wrench will lighten the load of your tool kit.

It's not necessary to weigh yourself down with sets of open end wrenches to have the right size tool for a variety of jobs. SELECT-O-LOCK with its thin jaws, will fit them all.

Push the magic button and the wrench is locked at the desired position—like an open end wrench. Pull the magic button—it's a conventional adjustable wrench.

There's no more slipping and resetting to annoy you and waste time. SELECT-O-LOCKS are built for rugged use—the magic button will not accidentally push out and unlock the wrench.

SELECT-O-LOCKS, to be known as the 93 series, are available in 6, 8, 10, 12 inch size and are priced the same as the regular 91 series.

Order from your distributor today and lighten the tool load.

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Film Shows Need for Industrial Power

SCHENECTADY, N. Y. — The need for adequate and modern power distribution in industrial plants is dramatized in a new 30-minute sound and color motion picture, "Goodbye Steve," which has been produced by the General Electric Co. for showings to audiences made up of manufacturers and engineers.

The film tells the story of Steve Donner, an electrical engineer for a manufacturing company. To secure maximum output, the company has installed much new equipment and added to the plant's already overburdened and antiquated electrical distribution system.

The plant electrical man's warnings of the dangers go unheeded until the deficiencies of the distribution system result in a series of production-disrupting incidents. Then, management realizes the need for a new and modern system.

In remarks made at the film's premiere, GE's service industries sales development manager, F. W. McChesney, estimated that by 1966 each production worker will utilize 36,000-kw of electricity each year on his job. This is twice the amount used by each worker only two years ago, he emphasized.

Another speaker, D. L. Beeman, manager-industrial power systems engineering, said GE hopes, through this film, to encourage the plant manager to give as much consideration to his power system as he does to his production machinery, and to provide the funds for the plant engineer to install an adequate up-to-date power system.

The film is part of a More Power to America kit which includes a 52-page manual entitled "The Power to Produce." The kit is available through GE's Apparatus Sales div., and also through local electric utility companies, according to the company.

Sylvania Builds More Fluorescent Space

DANVERS, MASS. — Sylvania Electric Products, Inc. is starting construction this fall of a 118,000-sq ft addition to its fluorescent lamp plant.

The completely air-conditioned one-story addition is scheduled for completion next summer. With this current expansion, Sylvania's Lighting division will have approximately 2,000,000-sq ft of floor space.

The rapid growth of the fluorescent lamp market and expanding requirements of the lighting industry in general inspired the new construction, Mr. Callahan said.

Harry Riley Takes EIBA Presidential Post

LONDON, ENGLAND — Harry Riley, managing director of John Riley and Son (Electrical) Ltd., Sheffield, has accepted an invitation to become president of the Electrical Industries Benevolent Assn. for 1956-57.

Mr. Riley is a past president of the Electrical Wholesalers' Federation, a British trade association corresponding to the National Association of Electrical Distributors in the U. S. He is well-known to many wholesalers on this side of the Atlantic, having attended the NAED convention during his EWF presidential term, 1948-49. This was the first of many trips to America by the energetic Mr. Riley, who visited South Africa this year, by way of a change, according to Electrical and Radio Trading magazine, British trade paper.

Being impressed by American wholesalers and their promotional activities, Mr. Riley recently celebrated the 40th anniversary of his firm by extending the premises and inaugurating what must be the first wholesaler's industrial electrical exhibition in the United Kingdom.

Homeowners Tell All On Air Conditioning

WILMINGTON, DEL. — Homeowners' attitudes toward central residential air conditioning are being studied by the Du Pont Company in the second of its annual series of market research surveys for the air conditioning industry.

Personal interviews with 1,900 householders are being made in 27 metropolitan areas. The survey is designed to uncover not only factors of satisfaction or dissatisfaction among those whose homes are centrally cooled, but also purchase plans of those whose homes are not now mechanically cooled. Results of the survey are expected to be announced later this month.

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Safe, swift cable connections with

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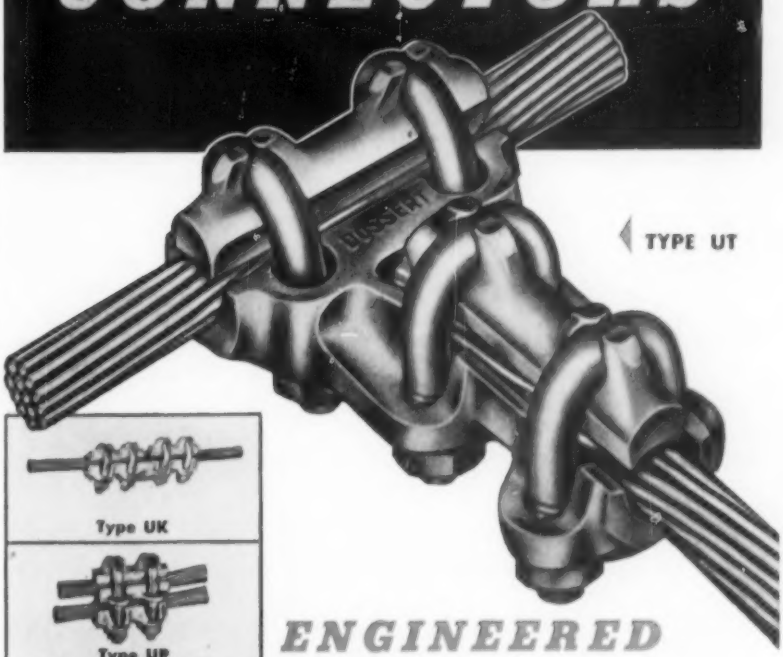

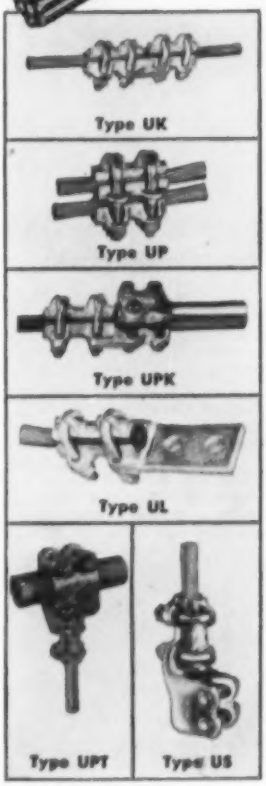

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U-Bolts clear all conductors by close limits, supported by saddles through their full arcs. Minimizes bending action, makes U-Bolts subject to tensile stress only.

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❸ Closes *automatically* with slight push to left!

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Exclusive SNAP-COVER *locks open* for easy one-hand insertion of plug—allows use of free hand to hold heavy electric tools. Cover does not rest on plug or wire, preventing damage to wire insulation or plug cap if cord is jerked out. COVER CANNOT BE LOOSENED OR PULLED OFF. Plate .040 solid Brass with Cast Metal cover, Baked Aluminum finish —all parts rust-proof. Attractively boxed with rubber weatherproof gaskets and mounting screws.

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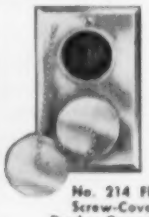
No. 216 Flush Switch — Exclusive one-piece die-cast Lever eliminates many extra working parts—provides smooth action, easy grip, added strength and durability.

No. 216 Flush Switch — (Single pole, T-rated)



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Utilities Combat Fears Over Atom

NEW YORK, N. Y.—The Edison Electric Institute's presidents' conference on Sept. 19 gave considerable attention to the problem of convincing people that nuclear power plants are safe and welcome neighbors, not breeders of atomic trouble.

The conference attempted to lay a solid base for the educational program which the utilities conclude they must undertake, and also to formulate the industry's answer to those who advocate a government "crash program" in the nuclear power field.

There has arisen a sense of insecurity among local residents in some areas adjoining proposed plant sites, due in part of conflicting claims reaching the public's ears. This situation has been particularly noticeable in the locality around Lagoona Beach, Michigan, where construction of the Enrico Fermi plant is underway.

Speaking at the ground-breaking ceremony there, Lewis L. Strauss, chairman of the Atomic Energy Commission likened the status of the nuclear plant to Edison's first generating station at Pearl St. in New York in 1882. There were a few pessimists who cried out that he would burn down the city, or perhaps electrocute its inhabitants. They said such a dangerous device should not be permitted inside city limits, chairman Strauss related.

One of the nation's top atomic experts, commenting on the Michigan project, told utility executives that there would be ample opportunity to conduct experiments to demonstrate the reactor's favorable characteristics, since initial operations will be started at a "ridiculously low power rate."

The plant will eventually provide 100,000-kw of nuclear power to the Detroit Edison Co.'s system.

GE Supply Announces Organization Change

BRIDGEPORT, CONN.—Effective on the first day of last month, General Electric Supply Co. has established an appliance and television department and a supplies and housewares department as operating components of the organization. These two departments are in addition to the Hotpoint Appliance Sales Co. department announced recently.

R. C. Hawley has been appointed general manager of the appliance and television department. C. R. Pritchard will be acting general manager of the supplies and housewares department in addition to his duties as vice president and general manager of the General Electric Supply Co. div. of GE.

New... Easier Way to Sell Bigger Profit Lighting Jobs!

Guarantee Satisfaction By Having Your Lighting Plan Certified to Meet NATIONAL STANDARDS

Now you can get the 3 business-clinching sales tools you've always wished you had to sell more lighting jobs! (1) Now you've got a tested way to prove to customers that you can and will deliver the kind of lighting they need. You've got a CERTIFIED Lighting Plan to back you up. It's the best way yet developed to keep customers from being tempted into buying sub-standard jobs because of price! (2) You've got the PLUS FEATURES Check List to sell MORE QUALITY into the job and get a bigger order, too! (3) You've the certificate issued by a disinterested authority countersigned by you, to back up your selling of proper illumination. Get all the facts... write for free booklet.

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This program is operated locally under the joint sponsorship of all electrical groups. If your area is listed below, get in touch with your local group... otherwise, write The National Lighting Bureau.

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NATIONAL LIGHTING BUREAU, 155 East 44th Street, New York City, Sponsored by the Industrial and Commercial Lighting Equipment Section of NEMA the National Electrical Manufacturers Association

This program is sponsored by all these member companies of the Industrial and Commercial Lighting Equipment Section of the National Electrical Manufacturers Association to help you increase your sales...

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MAKES INSTALLATION FASTER...EASIER

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Also available FOR 2½" PIPE

EVERYTHING FURNISHED

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Cut down installation costs with these easier, quicker to install, service entrance mast kits.

CHECK THIS LIST OF COMPLETE PARTS

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- √ Galvanized Roof Flashing and Storm Collar
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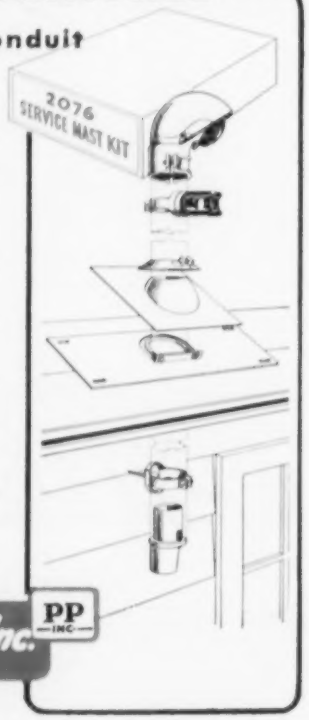

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Cornell Study Finds Haphazard Lighting

ITHACA, N.Y.—What is wrong with home lighting today? The Housing Research Center of Cornell University has just issued a report on this topic in connection with a two-year study being conducted at the university under a grant from Lightolier, Inc.

The first year report points out the haphazard accumulation of lighting units in today's home as major contributors to domestic inefficiency and eye-strain. The importance of planned lighting, say Cornell researchers, is sharply emphasized by present day needs for multi-purpose living areas and a high degree of flexibility within the home.

Starting with such basic fundamentals as light, vision and the visual environment, the Cornell study points out that too often the visual environment is formed by the chance accumulation of individual lighting elements which simply do not carry out the requirements of the people living in the home. No matter how attractive or functional a unit may be, the report suggests, unless it fits properly into the whole lighting scheme, it may be detrimental. The report further stresses the need for unified planning and coordination of lighting with the size and position of windows and the color and reflectivity of the fabrics and furnishings in the home.

Using scientific methods, Cornell researchers have made a basic analysis of home environment and home activities. They have examined the basic lighting requirements of 40 individual activities that combine to form today's living patterns.

Solutions to some particular home lighting problems will be considered in the second year of the study.

ARI Adopts Btu Rating For Room Conditioners

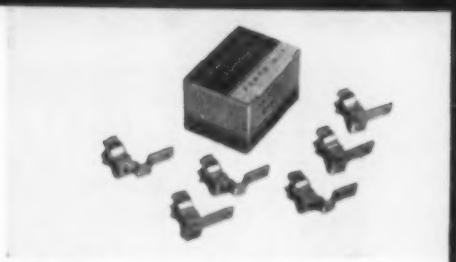
ABSECON, N. J.—The Room Air-Conditioners section of the Air-Conditioning and Refrigeration Institute, meeting here adopted a proposal that cooling capacities of room air-conditioning units be published in terms of "British thermal units."

Adoption of the Btu rating was effected, according to ARI, in an effort to dispel public confusion resulting from previous attempts to describe cooling capacity in terms of horsepower, tons and other measurements. While Btu's have been used by some manufacturers in the past, there has been no standard method of rating.

In cooling parlance, a Btu is the amount of cooling capacity required to lower the temperature of a pound of water by one degree.

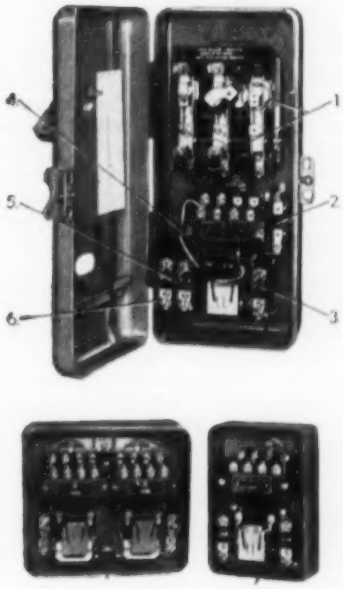
Now you can give off-the-shelf service, because . . .

G-E KITS PERMIT 6 STARTER MODIFICATIONS ...IN YOUR OWN SHOP

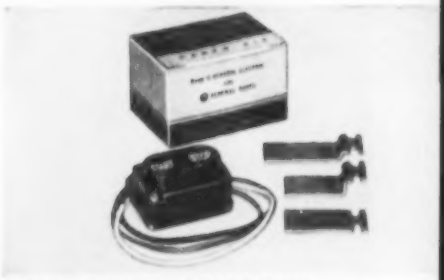


1. FUSE CLIPS can be easily changed on all G-E combination starters for use with different line current ratings or voltages.

2. AUXILIARY INTERLOCKS can add up to four additional control circuits to provide maximum flexibility for magnetic starters.



4. SELECTOR SWITCH fits into same cover knockout as the pushbutton unit, and gives you a choice of ON, OFF, or AUTO setting.



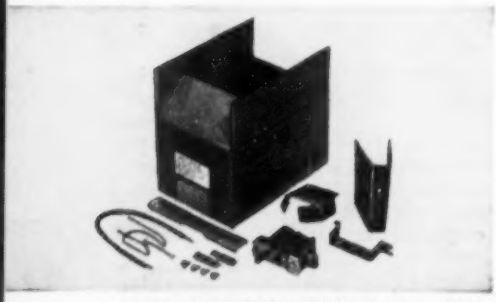
3. PUSH BUTTON for START-STOP operation can be mounted through knockout provided in the cover of G-E magnetic starters.

5. STRONGBOX COIL can be changed quickly and easily for different voltage ratings. There is no need to disturb the power wiring.

HERE'S WHY YOU BENEFIT FROM GENERAL ELECTRIC KITS

These six modification kits mean that now you need stock only standard G-E starters—and still provide many special forms that formerly had to be ordered from the factory. All kits are designed for simple, speedy installation so that you can give your customers immediate delivery of the starters they need.

These kits are designed to modify all G-E across-the-line non-reversing, combination and reversing starters. Send in the coupon below for a new bulletin complete with pricing and ordering information, plus "how-to-do-it" pictures of each kit. Your General Electric representative will be glad to give you additional information.



6. 3RD OVERLOAD RELAY can be added, whenever needed, to G-E magnetic starters. A screwdriver is the only tool necessary.

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your tools *and* your SALES with . . .

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New VACO Tool Center Increases Profits, Too

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- Steps up your sales
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Brings versatility, efficiency and showmanship to one concentrated selling area. Occupies only 5 square feet of floor space! Completely self-illuminated back display panel! Large storage compartments with sliding doors! Wrought iron legs! A truly modern merchandiser for modern sales. Placed in your store for practically the cost of the merchandise!

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Goal Is More Farm Kilowatts

- Inter-Industry Council holds Farm Power Use Workshop, announces promotion calendar.
- Agriculture Department lists $1,100 per farm as average electrical expenditure by 1960.

WASHINGTON, D. C. — Year-round promotion of farm use of electric energy and electrical equipment is the focus for the third annual National Power Use Workshop scheduled for Oct. 15-16 in the Milwaukee (Wis.) Auditorium. Sponsor of the event is the Inter-Industry Farm Electric Utilization Council.

"This year's Workshop program reflects the newest developments in power use activities and sales promotions," according to Fred H. Strong, council chairman and deputy administrator of the REA. "More attention is given to electric-powered farm production equipment and to the home appliances which add most to rural living," Mr. Strong continued.

The Workshop will include panel discussions featuring tested sales promotion plans and techniques developed by state or local inter-industry groups. Representatives of electrical manufacturers, distributors, contractors, power suppliers, and agricultural colleges and extension services will report on how they are working together to boost farm use of electricity.

Participants also will see displays of materials, devices, techniques and publications now being used to advance electric farming.

• **Calendar**—The council has also announced an expanded 1957 Farm Power Use Calendar emphasizing electrical equipment which can help farmers gain greater efficiency and productivity. The calendar suggests promotion of certain electrical appliances and farm equipment during certain months. It is designed for use by agricultural and educational agencies in planning farm power use programs, and for manufacturers and distributors and power suppliers in planning sales programs for 1957.

The calendar lists 10 farm equipment items and eight home appliances. This compares with four of each in the current calendar. The council believes the enlarged calendar will encourage a greater number of equipment manufacturers and distributors to join power suppliers and farm service organizations in selling the farmer on the newest in electric-powered equipment.

• **Objective**—The grand plan of the Inter-Industry Council is to help farmers attain economic stability and financial betterment for themselves through the planned utilization of economical electrical power.

The council, in publishing its 1957 calendar, says it recognizes two major developments already on record: (1) farmers are ready to accept proven electrical production equipment to increase productivity and cut costs; and (2) a vast and growing market awaits manufacturers, distributors and dealers who are alert to the electrical sales opportunities of the day.

By getting the industry to expand and coordinate its own promotional activities, the council hopes to help the farmer speed up the conversion to more efficient and economical methods and equipment, and at the same time, to broaden the market for manufacturers and distributors.

• **Market**—The Department of Agriculture has estimated that $5.3 billion, or an average of $1,100 per farm, will be spent by U. S. farmers on electrical equipment and appliances during the period from 1956 to 1960.

A run-down of the production equipment listed on the calendar shows water systems at the top of the list. The 1954 Census shows more than 50 per cent of U. S. farms with water systems—but that leaves nearly half still in the market for such equipment. Water systems will be the target of the Inter-Industry Council during five key months in 1957.

Over 93 per cent of all U. S. farms are now wired for electricity, but nearly every lighting installation more than five years old is obsolete. Underscoring the potential in this replacement market is the Department of Agriculture's estimate that lighting and wiring sales will account for 20 per cent of the total farm investment in electrical equipment and appliances during the next five years.

Promotion of adequate farmstead wiring is a year-round power use activity.

Mechanization of farm chores—in contrast to field operations—is just beginning to be practiced, thus creating a brand new market, according to the council. Farm chore equipment includes barn cleaners, silo unloaders and ventilating units—all listed for promotion at various times during 1957.

Sprinkler irrigation is another prac-

Continued on page 124

Now...it's easy to see why CHASE TAPES stay *fresher* longer!

New Saran Wrap packaging keeps every roll "factory fresh"..adds new sales appeal*

Check these important advantages and see for yourself why Chase's new "Fresh Approach" to electrical tape packaging means fewer storage problems for you . . . more satisfaction for your customers.

Wrapped-in freshness! Because it has the lowest moisture vapor transmission rate of any transparent packaging material, Saran Wrap seals Chase Tapes against harmful moisture . . . helps to prevent peeling, drying out or raveling . . . assures perfect adhesive qualities in every roll you sell.

Longer shelf life! Because Saran Wrap keeps every roll of Chase Tape fresher longer, it eliminates ordinary storage problems . . . permits full stocking to meet your customers' complete requirements.

Greater sales appeal! Sparkling, transparent Saran Wrap molds itself to every roll of Chase Tape to form a neat, eye-appealing package . . . adds new appeal to a sales-proven product.

Cash in on these exclusive sales advantages now. Order a profit-making supply of fresher, faster-selling Chase Electrical Tapes today. Chase & Sons, Inc., 26 Spruce Street, North Quincy, Mass.

**Trademark of The Dow Chemical Company for its vinylidene chloride copolymer film.*

CHASE & SONS INC.

North Quincy, Massachusetts

CABLE INSULATING TAPE • CABLE BINDING TAPE
CABLE JACKET TAPE • NEOPRENE SPLICING TAPE
FRICTION, RUBBER AND PLASTIC TAPE
LAMINATED AND REINFORCED INSULATION

One dependable quality

Manarch
RENEWABLE FUSES

From raw material to final inspection every part is MADE *and* ASSEMBLED *under our own* QUALITY CONTROL

STRATEGICALLY LOCATED
WAREHOUSE STOCKS

Manarch
ELECTRIC CORPORATION
Jamestown, New York

Farm Kilowatts (cont.)

Continued from page 122

tice requiring electrical equipment that is coming to the fore, as farmers are finding ways to store run-off water for dry season use.

Modern farming methods have come to dictate the use of hay and grain dryers in order to get top quality products from harvested acreage. At least 50 per cent of the nation's grain and livestock farms will ultimately be prospects for drying equipment, primarily electric blowers.

Electric brooders can help reduce farm labor and prevent loss in production of poultry and livestock. Over 75 per cent of farms reporting in the 1954 Census lacked modern pig brooders. Both infra-red lamp type and the heating cable buried in a concrete slab will be in demand.

The above mentioned items of equipment, along with milk coolers, comprise the farm production portion of the 1957 power use calendar.

The electrical appliances to be promoted for farm home use include laundry equipment (especially dryers), electric ranges, food freezers and two-zone refrigerators, water heaters, and small appliances. These labor saving items together with air conditioning, electric house heating and home lighting equipment complete the list that the council believes can and should be promoted to every farm home. As they say, the rural market has hardly been scratched.

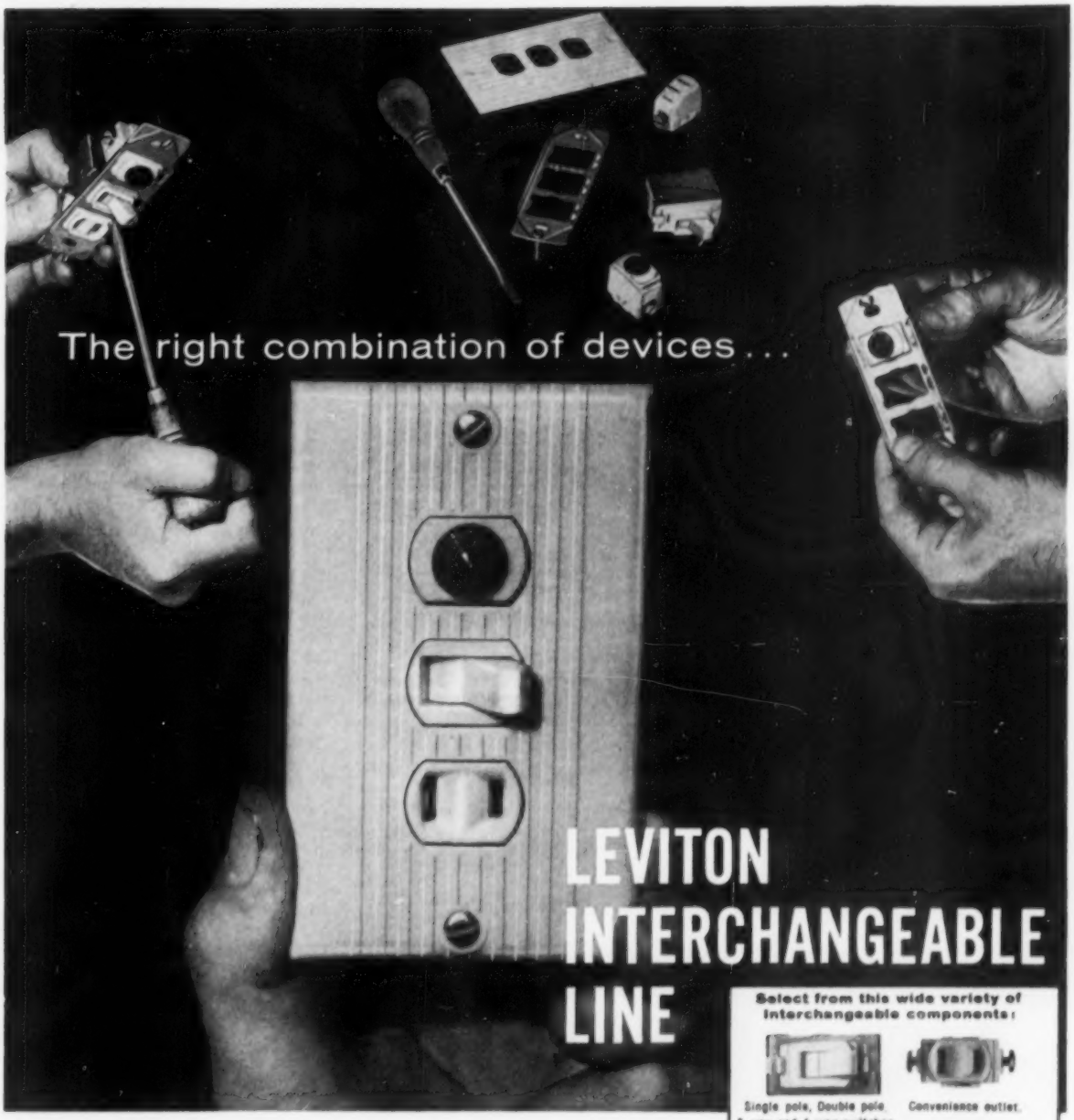
IES Introduces New Method For Lighting Estimates

NEW YORK, N. Y.— An entirely new method for making lighting calculations for interiors has been introduced by the Illuminating Engineering Society's committee on Lighting Design Practice in a recent report.

The method, described as simplified and more accurate, is a departure from the "lumen" method adopted in 1920. The new method takes into account the fact that ceilings of over 80 per cent reflectance (rather than the 1920 average of 75 per cent) are now common.

According to the report entitled, "Calculating Coefficients of Utilization," use of the up-to-date figure will lessen the effect of resulting coefficients being unnecessarily conservative when the ceiling is white.

IES states that copies of the report, explaining the new basic method, as well as work sheets and numerous charts showing a variety of room ratios based on reflectances and type of luminaire, are available from its publications office, for use of lighting technicians and estimators.



Now, a newly designed series of devices that can be made up in combination and installed right on the job with a minimum of inventory and a maximum of efficiency. Any combination of one, two or three devices on a single gang can be assembled quickly and easily. Each device locks into the strap with a twist of the screw driver.

With the Leviton Interchangeable Line, you get the devices you want in the combination that is right for the job. And these devices are also interchangeable with other devices of the same type for replacement purposes.

Devices fit standard boxes and wall plates. Available in brown or ivory phenolic. Newly designed wall plates in metal or phenolic are simply styled, easily cleaned. Listed by Underwriters' Laboratories.

Your best jobs are done with **... LEVITON**

For full information write **LEVITON MANUFACTURING COMPANY · BROOKLYN 22, N. Y.**

Chicago • Los Angeles • Leviton (Canada) Limited, Montreal

For building wire and cable contact our subsidiary AMERICAN INSULATED WIRE CORPORATION

COMPARE . . . QUALITY, PRICE EASE OF INSTALLATION

And You'll Use The Complete

EAGLE INTERCHANGE LINE

INTERCHANGEABLE WITH ALL STANDARD LINES OF WIRING DEVICES

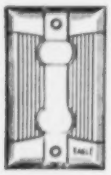
THE *ORIGINAL* INDEPENDENT INTERCHANGEABLE LINE

No. 901 T-Rated Single Pole Switch

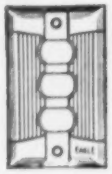
No. 902 Power Receptacle

No. 905 Pilot Light

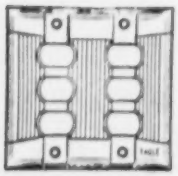
With these interchangeable devices hundreds of different combinations are possible in a very compact space. Yet ingenuity in design makes these devices as sturdy as their larger brothers in the Eagle line. They are the most advanced in design and with the modern Eagaline wall plates offer the most attractive line today.



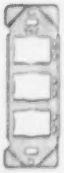
No. 952 1 Gang 2 Device Wall Plate



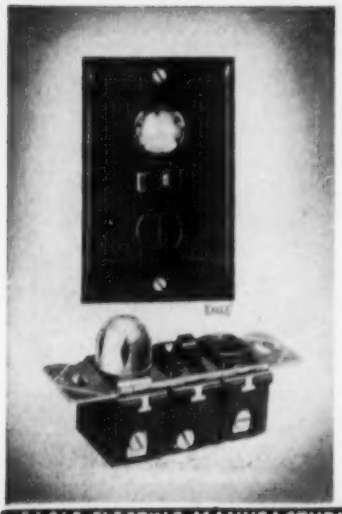
No. 953 1 Gang 3 Device Wall Plate



No. 956 2 Gang 6 Device Wall Plate



No. 913 Triple Mounting Switch



ALSO AVAILABLE:
Nite Lite, Pilot Light Receptacle, Neon Pilot Light, Push Button, Blank Insert, Flat Plug Caps and a complete line of Switches.

√ *Check These Features*

- All devices interchangeable with all standard wiring devices.
- All devices are of bakelite totally enclosed mechanisms.
- All switches and receptacles have double wipe phosphor bronze contacts.
- Large head binding screws, ample for #10 wire.
- Large radius on receptacle contacts permits easy entry of Plug Cap prongs.
- Wall plates carry the distinctive Eagle design. Correct mounting strap is packed with each wall plate in individual envelopes.
- All wiring devices are individually boxed and Listed By Underwriters' Laboratories.

WRITE FOR FREE DESCRIPTIVE BROCHURE ILLUSTRATING COMPLETE LINE

SOLD THROUGH WHOLESALERS ONLY

EAGLE

EAGLE ELECTRIC MANUFACTURING CO., INC.
LONG ISLAND CITY 1 • NEW YORK

"Perfection is not an Accident"

NAED Area Meetings Cover 15 States

NEW YORK, N. Y.—The National Association of Electrical Distributors last month sponsored eight area meetings covering 15 states plus the District of Columbia for executives of electrical wholesale distributors who are members of NAED.

The list of meetings held and the chairman who presided are as follows:

Sept. 11—Richmond, Va., for Virginia and Washington, D. C., C. P. Andrew, Noland Co., Inc., Newport News, Va.

Sept. 12—Charlotte, N. C., for North and South Carolina, John Shealy, Shealy Electrical Wholesalers, Inc., Greenville, S. C.

Sept. 14—Atlanta, Ga., for Alabama and Georgia, T. H. Wells, Jr., Wells Electric Supply Co., Inc., Birmingham, Ala.

Sept. 17—Jacksonville, Fla., for Florida wholesalers, J. A. Meier, Florida Electric Supply Inc., Tampa, Fla.

Sept. 17—Baltimore, Md., for eastern Pennsylvania, Delaware and Maryland, A. M. Reeder, Tristate Electrical Supply Co., Inc., Hagerstown, Md

Sept. 18—Pittsburgh, Pa., for western Pennsylvania and West Virginia, E. D. Knight, Virginian Electric Inc., Charleston, W. Va.

Sept. 19—Nashville, Tenn., for Kentucky and Tennessee, L. E. Salmon, Tennessee Valley Electric Supply Co., Memphis, Tenn.

Sept. 21—Denver, Colo., for Colorado, Wyoming and New Mexico.

During each meeting, staff members from NAED national headquarters presented a special report entitled, "A Logical Approach to Solving Current Management Problems," and also reports regarding recent developments in the association's program and the national picture of electrical wholesaling. An additional feature was an illustrated forum intended to point out ways in which the electrical distributor can improve his position and his relations with others in the electrical industry.

Next area meeting on the docket is Oct. 6 in Excelsior Springs, Mo. for Kansas, Missouri and Nebraska.

Electrical Safety Talks Scheduled

CHICAGO, ILL.—Two sessions devoted exclusively to the problems of accident prevention in the electrical equipment industry will be held during the 44th National Safety Congress and Exposition Oct. 22-26.

The sessions will feature talks on solvents, the hazards of radio frequency energy and explosion-proof electrical equipment.

Familiar symbols of safety

PROTECTION AT TRAIN CROSSINGS

FOR YOUR WIRING PROTECTION

Standard-threaded rigid steel conduit is the only wiring system approved today by the National Electrical Code as moisture-, vapor-, dust- and explosion-proof for use in hazardous locations and occupancies.

If the safe and efficient functioning of your electrical systems—in any type location—is a problem, then Youngstown "Buckeye" full-weight rigid steel conduit should be your specification. Field reports state: "It's easier to bend—easier to fish wires through and due to its superior corrosion resistance, affords a much longer service life."

Leading architects, owners and contractors have made "Buckeye" Conduit their standard because they've found its use increases both profits and customer satisfaction.

Delivery is no problem—as all leading electrical distributors carry complete and ample stocks of Youngstown "Buckeye" Conduit. Their quick, courteous service is yours for a phone call—why not today?

QUALITY YOUNGSTOWN SERVICE

Ask your distributor for Youngstown Buckeye Full Weight Rigid Steel Conduit and Youngstown Electrical Metallic Tubing.

THE YOUNGSTOWN SHEET AND TUBE COMPANY

Manufacturers of Carbon, Alloy and Yoloy Steel

General Offices - Youngstown 1, Ohio
District Sales Offices in Principal Cities

Slater SPECIFICATION GRADE

GROUNDING RECEPTACLES

Send for your FREE illustrated price sheet . . . lists all Slater Wiring Devices

S-321-BR

Single receptacle, brown, Nema 125 Volts—15 Amperes, with ears. Available in ivory (S-321-IV) or with no ears (S-320).
List price .80

S-328-BR

Nema, 15 Amperes — 250 volts, with ears. Sturdy bakelite. Compact design. Available in ivory (S-328-IV) or with no ears (S-327).
List price .80

S-396-BR

20 Amperes—250 volts, 3-wire, 3-phase or single phase with grounding, with ears. Available in ivory (S-396-IV).
List price $1.45

SPECIFICATION GRADE

320-BR

Duplex receptacle, brown, Nema, 15 Ampere, 125 Volts, with ears.
List Price . . .
320-BR $2.19
320-IV $2.31

2-CIRCUIT

322-BR

New, 2 circuit duplex receptacle—15 amperes, 120 volts; 15 amperes, 250 volts. Furnished with ears and in ivory (322-IV).

326-BR

Combination 2 and 3-wire duplex grounding receptacle with ears. Also accepts parallel bladed caps that do not require grounding. 15 Ampere, 125 Volts, 10 Ampere, 250 Volts.
List Price . . .
326-BR $2.24
326-IV $2.39

393-IV

New, 2 circuit duplex receptacle, 15 amperes, 125 volts, 2 wire at one end; 10 amperes, 250 volts, 3 wire at other end. U L approved. List price—
$2.00 BR, $2.10 IV

394-BR

New duplex receptacle takes either tandem or 3-wire crow foot caps, 2 circuits, 20 A-250 Volts, and 15 A-250V.
List Price . . . includes steel wall plate . . .
394-BR $2.44
394-IV $2.54

3200-BR

Intermediate grade, Nema duplex receptacle 15 amperes, 125 volts.
List Price .90

Covers available
Add suffix-3 for receptacles on 3¼" cover
Add suffix-4 for receptacles on 4" cover

Send for Bulletin 37

Slater ELECTRIC & MANUFACTURING COMPANY
56TH STREET AND 37TH AVENUE • WOODSIDE 77, L. I., N. Y. • ILlinois 8-6500

EEWA Sponsors Fourth Electrical Industries Show

NEW YORK, N. Y.—Dates for the Fourth National Electrical Industries Show, sponsored by the Eastern Electrical Wholesalers Assn. have been listed as April 8-11, 1957.

The show has been advanced to spring, stated the manager, because of many requests from wholesalers, contractors and manufacturers. The 1957 show has been scheduled for larger quarters to accommodate more manufacturer displays, it is stated. The new location is the 71st Regiment Armory, Park Ave. at 33rd St., New York. The show is being billed as an electrical "spectacular" in every sense of the word.

The 1955 show records indicate a trade attendance of almost 12,000 electrical men from over 30 states. Consistent nationwide promotion between now and next April will be carried on in an effort to show an even better attendance mark for the 1957 show, according to the sponsors and management.

Ellis & Howard Sets Move to New Building

TORONTO—Ellis & Howard, Ltd., will move into its new 37,000-sq ft building shortly after the first of the year, according to Irwin Mather, general manager.

The move to 30 Tycos Drive from the present downtown location will give the supplies firm an additional 13,000-sq ft of floor space, plus a 2,000-sq ft residential lighting showroom. The first floor will be used for warehousing, with half of the second for office space.

Reasons for the move, Mather said, were the firm's inconvenient delivery and shipping setup, the lack of customer parking and the three-floor warehouse operation.

Ellis & Howard operates a main house in Kitchener, Ont. and a third house in London, Ont. Headed by F. O. Ellis, the firm employs 28 outside salesmen and covers most of Ontario.

Raybro Electric Moves Orlando, Fla. Branch

ORLANDO, FLA.—Raybro Electric Supplies, Inc. branch here moved to a new building at 500 N. Westmoreland Drive in midsummer, completing the move without loss of a day's business, it is reported.

Raybro's original Orlando house, opened in 1950, was at 639 W. Central Ave. The branch now serves all or portions of nine counties in central Florida. Paul Roulstone is branch manager.

Is emergency lighting required by law in your locality ?

When power fails and lights go out, Exide Lightguard emergency lighting units go on—instantly and automatically. Plug into regular outlets. Built-in charger. Batteries last for years. In several models.

In many places it is. Because sudden darkness is dangerous wherever people congregate. Today there's a tremendous opportunity for volume sales in Exide Lightguard® emergency lighting equipment. Most prospects need several units. So every sale can be substantial. And the potential has scarcely been tapped.

HERE'S YOUR MARKET: stores, office buildings, schools, theaters, factories, laboratories, restaurants and institutions. Get in on the ground floor. Become an Exide dealer. Exide Lightguards are foremost in the field for quality and acceptance. Send the coupon today.

Exide® Industrial Division
The Electric Storage Battery Company, Philadelphia 2, Pa.

Send details on Exide Lightguards

Name_____

Street_____

City_____ Zone____ State____

My business is_____

17

They Won't Come Out Because...

ALL

TUBE-WELD

FITTINGS' SCREWS

ARE STAKED FOR PERMANENCE!

With Tube-weld's oversized hardened steel set screws, you'll eliminate fumbling and costly waste of time when working in high or tight places. This, plus longer length for easy wire-pulling, heavy gauge *one piece* construction that cannot open or spread, self-centering box connector shoulders, lustrous zinc finish and easy-to-locate packaging are just *some* of Tube-weld's features. Available in ½", ¾" and 1" sizes. Brochure on request. ***ELECTRIC TUBE PRODUCTS, (A Subsidiary of Berger Machine Products, Inc.) Plant & Offices: 74-16 Grand Ave., Maspeth (N.Y.C.), N.Y., DEfender 5-8000.***

ELECTRIC TUBE PRODUCTS

74-16 Grand Avenue
Maspeth (N.Y.C.), N.Y.
DEfender 5-8000

CONNECT WITH ETP FOR ECONOMY

Hurricanes on the Run?

- **Commerce Department orders "weather radars" for tracking hurricanes, tornadoes, flash floods.**
- **Weather Bureau sets up nationwide network to guide planes and ships, warn residents.**

WASHINGTON, D.C. — Earlier and more reliable storm warnings will soon be possible through new U. S. Weather Bureau radars that can detect and track hurricanes and tornadoes up to 250 miles away.

The Department of Commerce has signed a $3,800,000 contract with Raytheon Manufacturing Co., of Waltham, Mass., for 39 new-type weather radars—tailor-made to Weather Bureau and forecasting needs. Delivery is scheduled to begin in early 1958.

The new equipment will be linked into a planned nationwide network of radar weather stations to be strategically located throughout the nation. By tracking a storm and relaying the findings from one station to the next without losing contact with the disturbance, meterologists will be able to make a continuous check of storm progress and development.

Use of this network, Weather Bureau officials point out, will reduce to a minimum present difficulties in the plotting of hurricanes as they approach the coast. It will also be used to help guide planes and ships either away from or safely through turbulent weather and severe storms.

• **How It Works**—Weather radar exploits the fact that precipitation and cloud particles reflect radar waves. Each of the new weather radars can instantly pinpoint the exact location of severe storms within its 200,000-sq mi coverage. The weather forecaster will see an entire "panoramic" picture that otherwise could only be provided by hundreds of separate weather observations.

If a more detailed analysis of any particular storm structure is needed, the operator will be able to single out that disturbance and magnify it on his screen. It has been suggested that these radars will also help determine total rainfall over a particular watershed; this information will be valuable in forecasting flash floods.

The radar beams of these new sets will penetrate deeper into severe storms such as hurricanes and tornadoes than the storm detection radars currently in use (originally designed for military observation). Funds for the new specialized weather radars were recently voted by Congress.

• **Tailor-Made**—The new units will be adaptable to the various types of weather found in the U. S. For example, during the hurricane season, from August to November, a transmitter ideal for hurricane detection will be used along the eastern seaboard. Sets in other parts of the country likewise could be adapted to their own weather needs.

In addition to the traditional reconnaissance of the Navy and Air Force hurricane hunters, the Weather Bureau at last has, as part of its expanding National Hurricane Research Project, the first of three flying hurricane laboratories—a B-50 Superfortress.

Detailed study of storms and weather, the Weather Bureau meteorologists add, may not only lead to more reliable and earlier storm warnings, but also may provide clues to the best ways to cope with these destructive quirks of nature.

REA '56 Loans Range From Arctic to Atomic

WASHINGTON, D. C.—The Rural Electrification Administration states that it has just ended one of its most successful years on record, having arranged loans to installations ranging from the Arctic to the atomic.

Explaining this, REA reports that the first loan for an atomic reactor and generating plant was made to the Rural Cooperative Power Association, Elk River, Minn., and the first loan to provide rural electric facilities within the Arctic Circle was made to the Kotzebue Electric Association at Kotzebue, Alaska.

Summarizing the fiscal year 1956, REA says it made 344 loans for a total of $189,800,000. This expenditure will bring electric service for the first time to 106,000 rural consumers, and it will provide 188,000-kw of new generating capacity to feed rural power systems.

REA also states that $105 million, or more than half of the 1956 loan total, will go to expand or replace facilities outgrown by increased use of electric power in rural areas.

REA estimates that a backlog of requests on hand, plus additional applications expected on the basis of a survey of borrowers, will bring loan needs for the coming year to a total of $185 million.

Now you need only half the former space with General Electric's new 30 amp, 600 volt HCI safety switch!

only 7 3/8" wide

This HCI safety switch, both heavy and standard duty, has a new compact design measuring only 7 3/8" wide x 9 3/8" high x 5 1/8" deep! In less than half the former space, you get the same dependable protection and these important benefits:

Long life, dependable performance. G-E arc quenchers quickly divide and snuff out arcs, help prevent pitting and burning of contacts. Heavy steel box has Bonderite† corrosion-resistant finish and butt-hinged door for rugged durability.

Speedy installation and maintenance. Front operated handle makes close ganging easy with the heavy duty model; front fusing on both models means fast access to fuses, efficient heat dispersal. Double-break HCI pole units can be individually replaced.

Better protection, greater safety. Quick-make, quick-break contacts can't be teased in or out. Switch handle locks OFF or ON. When switch door is open, special line shield on heavy duty model guards operator against accidental contact with live parts. *General Electric Company, Circuit Protective Devices Department, Plainville, Conn.*

Use these catalog numbers to order 30 amp, 600 volt HCI switches from your G-E Distributor:

Type H, heavy duty, front operated, 3 pole*		Type S, standard duty, side operated, 3 pole*	
Fusible	No fuse	Fusible	No fuse
TC90361SD	TC45361SD	TC60361	TC30361

†Parker Rust Proof Co. *UL listed

GENERAL ELECTRIC

NEW MODELS MAKE Intermatic®

the complete source for all your time switch needs

Here they are — all the new additions to the Intermatic line. Now you can have *every* time switch that you might be called on to furnish from the manufacturer you've come to depend on — International Register Co. Intermatic — the complete line, with the features that mean fast installation, more profits, and long-life dependability.

NEW — **For poultry feeders, process timings, fans, oil well pumping—Series T960 "Supervisor"**: For 1-96 on-off operations every 24 hours. Trippers need not be removed to set.

NEW — **For 1-12 on-off operations within 12 minutes—"Cycler-12"**: for fans, poultry foggers, pumps, process timings.

NEW — **For 7 day operation—Series V21000**: provides a program of operation preset for each day of the week . . . for heating systems, air conditioning systems, lights, fans, etc. Skips days if desired.

NEW — **For Two Circuit Control—Series V22000**: Enables switching of two load circuits at different times with one switch . . . for commercial indoor-outdoor lighting combinations, process timings, ventilating systems, etc.

NEW — **For Precision Short Interval Switching—Series V27000 "Supervisor Deluxe"**: Intermittent 24-hr. control of recorded music, process timings, fans, etc., with switchings at 5 or 15 minute intervals.

NEW — **For Bells, Signal Lights, Buzzers, process timings, etc.—Series V28000 and V29000 "Scheduler"**: 1 to 288 daily operations, operating at any 2½ minute multiple . . . devices operate from 2 to 60 seconds.

PLUS ALL THE DEPENDABLE STAND-BYS

For Standard ON-OFF Operations — Series TS60: 1 to 12 on-off operations a day . . . timings from 1 to 23 hours . . . heavy duty . . . rated 35 amperes.

For Poultry House Lighting. Standard single pole model for morning or all night lighting . . . dimmer switch model for morning and evening or evening only lighting.

For ON-OFF Cycles From 5 to 60 Minutes — Series T670: Up to 14 on-off cycles a day . . . each cycle independently adjustable from 5 to 60 minutes . . . 35 amperes.

For Automatic Control of Room Air Conditioners — Series P690: Portable, plug-in . . . for air conditioners up to and including 1 horsepower. For 2 or 3 wire units.

For Skipping Operation on Selected Days — Series TS66: **"Skipper"**: Skips operation automatically on weekends, holidays or any selected days . . . 1 to 12 on-off operations a day . . . timings from 1 to 23 hours . . . rated 35 amperes.

Raintight Case—most models available with the only UL approved raintight case for outdoor installation.

WRITE FOR CATALOG 106-Qt on complete line

Intermatic® TIME CONTROLS

YOU CAN *Depend* ON INTERMATIC

INTERNATIONAL REGISTER CO.
2624 W. Washington Blvd.
Chicago 12, Illinois

Englewood Electrical Lists Appointments

CHICAGO, ILL. — Organizational changes and appointments at Englewood Electrical Supply Co. were made known by George Albiez, president of the wholesale distributing firm.

Henry F. Stanke is now executive vice president in charge of special account assignments.

Raymond F. O'Leary was named vice president and manager, Chicago branch; and Harry A. Nicholls was named vice president in charge of operations, Chicago branch.

Additional appointments at the Chicago office are as follows: James C. Vlazny, manager-apparatus and supply div.; John E. Smith, manager-lighting div.; Bertram C. Stutz, manager-appliance div.; P. T. Jorgensen, controller; and Thomas J. Woulfe, in charge of purchasing dept.

Roy D. Robinson was named operations manager of Englewood's branch at Gary, Ind.

Elgee Electric Plans Nov. 1 Move

COLUMBUS, OHIO—Elgee Electric Co. announces its new building at 1030 W. Third Ave. should be ready for occupancy about Nov. 1. The wholesale electric supply company's new quarters will have a 2,200-sq ft air conditioned lighting fixture showroom, plus two private conference rooms in addition to office area and warehouse space with two overhead loading doors.

Commercial Electric, Toledo, O., Expands

TOLEDO, OHIO — The Commercial Electric Co., wholesale distributor has moved to expanded quarters at 3300 Summit St. from its former location at 1303 Adams St.

The building, formerly a factory, was remodeled into showrooms, offices, service headquarters and warehouse and now is said to rank with the most modern facilities in the country.

Raybro Promotes Two To Key Positions

TAMPA, FLA.—Two members of the staff of Raybro Electric Supplies, Inc. have been appointed recently to key positions within the firm.

William T. (Bill) Brown, former Miami branch manager, was appointed to the newly created position of supply sales manager for the Florida electrical wholesaling firm; and Jack C. Key, former assistant manager at Miami, was named branch manager to succeed Brown.

Don't *Bid-Shop!*

DON'T TAKE A CHANCE!

Don't take a chance with just ordinary dry-type transformers.

Why use those which are not Underwriters' approved?

Why use those which have objectionable noise levels?

Why use those which have no overload capacity?

Why use those which do not have safe, low operating temperatures?

Why use those which do not have thermo-vacuum impregnated windings brazed to solderless terminals?

Why use those which require extra brackets or fittings that increase installation costs?

Why use 3 single-phase transformers when a single 3-phase unit can be installed at a lower cost?

You won't be taking a chance

with SORGEL dry-type transformers, because they have all the outstanding features which are nationally accepted as top quality and time-tested by engineers, architects, and users everywhere. Most quiet operation. Liberal overload capacity. Low operating temperature. Thermo-vacuum impregnated windings brazed to terminals. Attached wall brackets. Roomy connection compartment with solderless terminals.

Underwriters' Approved

SORGEL air-cooled transformers are Underwriters' approved in all ratings covered by the Underwriters' Re-examination Service, both single phase and 3-phase.

All SORGEL transformers are constructed according to the latest Underwriters' Laboratories standards. They also meet all the requirements of the ASA, AIEE, and NEMA standards.

Available in the following ratings:

¼ Kva to 2500 Kva single phase.
1 Kva to 3000 Kva 3-phase, 2-phase, and phase changing.

All standard voltages, such as 120, 208, 240, 480, 600, 2400, 4160, 4800, 7200, 13,200, and up to 15,000 volts, and any intermediate or special lower voltage.

●

Also Special Transformers and Saturable Reactors

●

Stock carried by jobbers in the following cities:

New York, N. Y.	Chicago, Ill.
Buffalo, N. Y.	Rockford, Ill.
Roxbury, Mass.	Rock Island, Ill.
High Point, N. C.	Richmond, Ind.
Raleigh, N. C.	Lafayette, Ind.
Philadelphia, Pa.	Battle Creek, Mich.
Cincinnati, Ohio	Green Bay, Wis.
Cleveland, Ohio	Omaha, Neb.
Louisville, Ky.	Davenport, Iowa
Ashland, Ky.	Cedar Rapids, Iowa
Shreveport, La.	Beaumont, Tex.

Los Angeles, Calif.

Consult the classified section of your phone directory or write to the factory

SORGEL TRANSFORMERS

Sales Engineers in Principal Cities

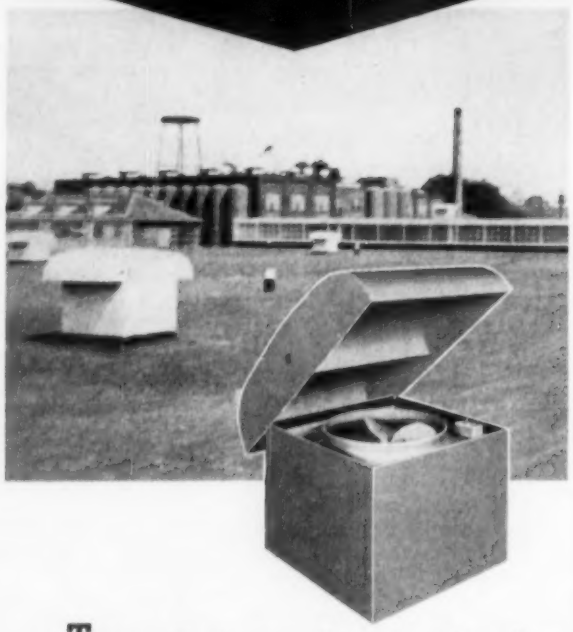
SORGEL ELECTRIC CO., 832 West National Ave., Milwaukee 4, Wisconsin

40 years' experience in the development, manufacturing and application of transformers

NEW!

PROPELLER TYPE ROOF VENTILATOR

Combines Fan and Weather-proof Housing...



The new Peerless propeller type roof ventilator combines fan and weather-proof housing in a single unit that can be installed quickly. Units are sized from 12" to 48" with air capacities of 640 CFM to 22,000 CFM. Motors are totally enclosed to seal out dust, grit and moisture. Units can be equipped with automatic or motor driven shutters. These units meet the needs of factories and large stores. As installed (above) the units ventilate washrooms and general factory areas. Get the facts about the new Peerless Roof Ventilator today. Write for Peerless Bulletin SDA-143-7.

FAN AND BLOWER DIVISION

THE Peerless-Electric® COMPANY

FANS · BLOWERS · ELECTRIC MOTORS · ELECTRONIC EQUIPMENT

1403 W. MARKET ST., WARREN, OHIO

National Association of Electrical Distributors
Western Region
Westward-Ho Hotel
Phoenix, Ariz.
September 30-October 3
Meetings, panels

American Institute of Electrical Engineers
Fall General Meeting
Morrison Hotel
Chicago, Ill.
October 1-5
Speakers, papers

International Association of Electrical Leagues
21st Annual Conference
Sheraton-Cadillac Hotel
Detroit, Mich.
October 3-6
Meetings, elections, awards

Missouri River Club
Annual Meeting
Elms Hotel
Excelsior Springs, Mo.
October 4-6
Speakers, meetings, golf

Rocky Mountain Electrical League
53rd Annual Fall Convention
Broadmoor Hotel
Colorado Springs, Colo.
October 7-10
Speakers, meetings, exhibits, awards

New Jersey Council of Electrical Leagues
20th Convention
Ambassador Hotel
Atlantic City, N. J.
October 12-13
Meetings, exhibits, awards

Lake Michigan Club
French Lick Springs Hotel
French Lick, Ind.
October 20-23
Speakers, golf, entertainment

International Association of Electrical Inspectors
Southern Section Convention
Statler-Hilton Hotel
Dallas, Texas
October 21-24
Meetings, entertainment

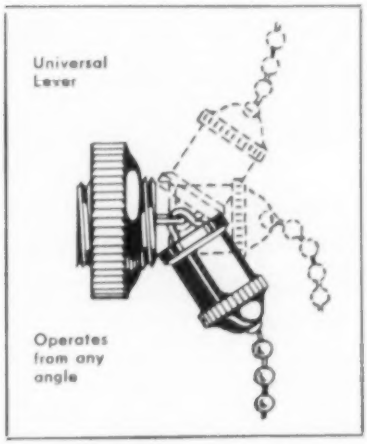
National Electrical Manufacturers Assn.
30th Annual Meeting
Traymore Hotel
Atlantic City, N. J.
November 12-16
Meetings, speakers, awards, elections

PUBLISHED TO SERVE DISTRIBUTOR SALESMEN WHO WANT TO SELL MORE

McGILL news

Let's talk features—features built into McGill electrical specialties that mean greater service, greater convenience, greater value . . . greater sales.

• McGill Levolier® switches, industrial lamp guards and industrial sockets have many outstanding features well-known to distributor sales staffs, but perhaps overlooked sometimes and not illustrated as valuable sales points.



• **Exclusive feature** — For instance, there is the exclusive universal lever action built into Levolier® switches, illustrated above:

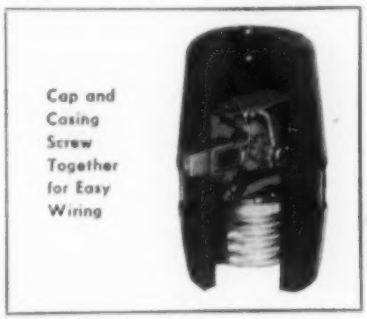
Besides being the most dependable method of switch control known, it offers the extra convenience of being operable from any angle. Available also with plain metal lever and molded lever. Both have provided recognizable evidence of McGill quality for years.

• **Modern materials** — Extensive use of impact-resisting molded phenolic material in switch cases, lamp guard handles and industrial sockets offers added convenience and durability to McGill electrical specialties.

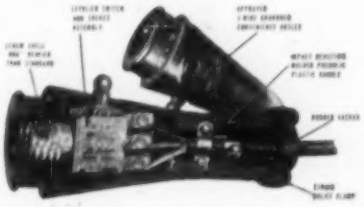
• **Ease of wiring**—In most McGill switches, for instance, phenolic casings not only provide perfect insulation and protection against hard use but also can be removed quickly to provide for easy wiring.

After a mounting nut is loosened, the mechanism quickly slides out of the casing as shown above.

• **More convenience** — The extra thick molded-phenolic outer shells of Levolier industrial sockets are designed for convenience, too. Cap and casing screw together at the control lever to make wiring a simple matter, as shown below. Don't overlook the added "feature" of extra durability that offers industry a relief from frequent and costly socket replacement.



• **Many advantages** — Molded-phenolic handles for lampguards made of the same material as telephone receivers not only are impact- and heat-resisting but also are positively insulated and non-conductive. Use of this material also makes possible incorporation of two and three-wire convenience outlets, the latter for grounding. All completely Underwriters' Approved.



• **Color helps too** — And, speaking of handles, there is a complete selection of lamp guards with the new, gray neoprene-butyl handle. Easily identified by its gray color, it is grease-resistant, won't soften, swell or crack, resists deterioration and gives perfect insulation. Levolier sockets are now available in machine gray also.

• **Simple but effective**—Just as color can help you sell, so can a little twist in a piece of wire. In this case, the little twist forms the McGill No-Rol feature that facilitates use of McGill industrial lamp guards.

Four evenly-spaced ears in the bottom wire of the cage keep the guard from rolling when placed on a flat surface. The light is never rolled out of position.

• These and other many features have been designed and engineered into McGill electrical specialties to make them better, safer and easier to use. They are all features designed for the benefit of the user. Become familiar with these features and be sure to let your customers know about them. Let them help you sell more.

FOR MORE INFORMATION

WRITE TO

McGILL MANUFACTURING CO., INC.
250 N. Campbell St., Valparaiso, Indiana

TRINE'S NEW
PILOT-LITE PUSH BUTTON

- FOR RINGING CHIMES BELLS, BUZZERS, ETC.
- NARROW
- SOLID BRASS
- HARMONIOUS DESIGN
- LOW PRICED
- BIG BAR electrically lighted (also available without light)

FEATURED ON TRINE'S NO. 1 PUSH BUTTON DISPLAY

with FREE transformer that lights up pilot-lite push buttons

Trine's new "pilot-lite" available in two types:

No. 25715
for 6 to 16 volts

No. 25724
for 24 Volts

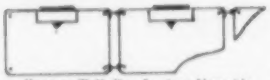
No special wiring required.

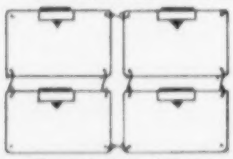
DEAL INCLUDES:
Display with 4 samples and introductory backup stock of assorted push buttons.

List Price **$19.75**

This versatile, expandable display is one of a series of new Trine Sectional Displays

Hang on Wall — New Sections Fit Underneath


Hang on Wall, New Sections Alongside


Hang on Wall, New Sections Fit Alongside and Underneath

Two Display Sections Joined to Form Triangle, Fastens Easily on Wall

Wire Easel for Counter Display

DISPLAY—Masonite, silk screened in full rich color, complete with wire easel for standing, four eyelets for hanging, S-hooks for joining to future sections. Free transformer with 6 ft. of wire cord ready to plug in.

Trine's Section No. 2 Display now available, too. Write for literature and prices.

TRINE MANUFACTURING CORP.
1430 FERRIS PLACE, NEW YORK 61, N. Y.

Building Materials Exposition
National Assn. of Home Builders
Chicago Coliseum, Conrad Hilton and Statler Hotels
Chicago, Ill.
January 20-24, 1957
Exhibits, forums

American Institute of Electrical Engineers
Winter General Meeting
Hotel Statler
New York, N. Y.
January 21-25, 1957
Speakers, papers

Southeastern Electrical Wholesalers Assn.
7th Annual "Industry Day" Meeting
Biltmore Hotel
Atlanta, Ga.
January 24-25, 1957
Speakers, panels, meetings

Plant Maintenance & Engineering Show
Public Auditorium
Cleveland, Ohio
January 28-31, 1957
Exhibits, conferences

National Electrical Week
ARI, EEI, IAEI, IAEL, IBEW, NARDA, NAED, NECA, NEMA
February 10-16, 1957
National, state and local promotions

Ventilating, Electric Heating Exposition
Electric Institute of Washington
Sheraton-Park Hotel
Washington, D. C.
February 8-10, 1957
Exhibits, luncheon, speakers

Electrical Industry-Conference Show
Electric Institute of Washington
Shoreham Hotel
Washington, D. C.
February 12-14, 1957
Exhibits, conferences

International Heating, Air-Conditioning Exposition
International Ampitheatre
Chicago, Ill.
February 25-March 1, 1957
Exhibits

National Electrical Manufacturers Assn.
Edgewater Beach Hotel
Chicago, Ill.
March 11-14, 1957
Meetings, speakers

Fourth National Electrical Industries Show
Eastern Electrical Wholesalers Assn.
71st Regiment Armory
New York, N. Y.
April 8-11, 1957
Exhibits

Just in time for Christmas!

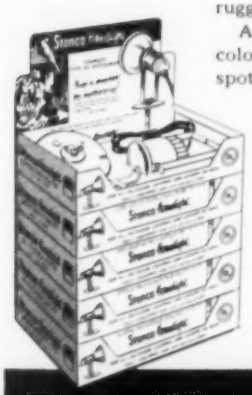
Stonco Homelight

for festive holiday lighting, and year-long use in and around the home

Here's a best seller that goes to work in a hundred and one spots inside or outside—for gardens and patios, holiday lighting, driveways, farmyards, for protective lighting—*wherever* you need a versatile, rugged lampholder.

Attractively display-packaged in bright holiday colors. Stonco Homelight is the only bargain-priced spotlight to give you all these outstanding features:

- *Comes complete with all accessories, wall bracket and lawn spike*
- *Cast aluminum—will never rust or corrode*
- *Completely weatherproof with porcelain socket and seal*
- *Six-foot SJO rubber-jacketed cord, with weatherproof rubber plug*
- *Fully UL approved*



Stack and show the Homelight for bigger sales

Homelight's gay counter-display package helps make more sales. Flat cartons stack compactly, open to full view display of the unit.

ORDER NOW FOR IMMEDIATE DELIVERY

And write for the complete Stonco catalog for information on the fullest line of high quality, budget-priced outdoor lighting equipment.

For outdoor lighting—It's

Stonco

STONCO ELECTRIC PRODUCTS CO.
333 Monroe Avenue
Kenilworth, New Jersey

ILSCO

THE BIG LUG OF INDUSTRY

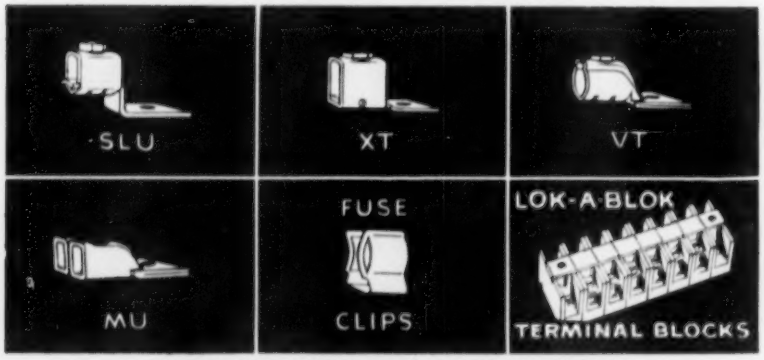
For Superior Quality
√ Check these features

- ☐ Pure copper, 100% conductivity
- ☐ Wide wire range—re-usable
- ☐ U/L-CSA Approved
- ☐ Compact—rugged
- ☐ Advanced designing
- ☐ Sound engineering
- ☐ Speedy installation
- ☐ Cool operation—takes overload
- ☐ No special tools needed
- ☐ All screws wax-treated for better clamping

MODEL LO

ALL THESE FEATURES AT LOW COST

Your √ Test Will Prove ILSCO Superiority Over Cast Or Any Other Type Lugs



WRITE FOR CATALOG #50 AND SAMPLES

ILSCO CORPORATION

5746 MARIEMONT AVE. CINCINNATI 27, OHIO

LEGAL HOLIDAYS

OCTOBER

1 Missouri—Election Day.
10 Oklahoma—Historical Day.
12 States Vary—Columbus Day.
31 Nevada—Nevada Day.

NOVEMBER

6 All states—Election Day.
11 All states—Veterans' Day. (Optional for banks to remain closed in Colorado.)
22 All states—Thanksgiving Day.

DECEMBER

25 All states—Christmas Day.

Sources: Manufacturers Trust Co., New York, N.Y.: Domestic Distribution Dept., Chamber of Commerce of the United States, Washington, D. C.

PEOPLE IN THE NEWS

Clyde H. Wood has been named general sales manager at **Bryant Electric Co.,** Bridgeport, Conn., subsidiary of Westinghouse Electric Corp.

Clarence P. Baird has been appointed field engineer for the **Hoffman Radio Div.,** Hoffman Electronics Corp., Los Angeles. He will cover Hoffman distributors in the Southwest with headquarters in Houston, Tex.

Willis J. Stillwell is commercial development manager, electrical products group, at **Minnesota Mining & Manufacturing Co.,** St. Paul, Minn.

Carl F. Ortolf is a field engineer in the Indianapolis district for **Bull Dog Electric Products Co.,** Detroit, Mich.

King D. Christopher has been named general manager of the newly established Los Angeles div. of **Clark Controller Co.,** Cleveland, Ohio, manufacturer of industrial electric controls. He has been district sales manager in Los Angeles since 1951.

B. H. Melton has been appointed to the newly created position of national sales manager-appliance div., **Admiral Corp.** He will direct activities of all regional appliance managers throughout the country.

Robert C. Harper is director of Pacific Coast sales for **Sylvania Electric Products, Inc.,** having advanced from the post of western regional sales manager-lighting products. He succeeds **Garlan Morse,** who recently

"Give me the one in the ad"

"You'd be surprised how many customers come in here asking 'Butch' or one of the other countermen for the Amprobe they saw advertised in E. C. & M. They're sold on Amprobe before they come in. Another thing I appreciate is the direct mail you're always sending out to my customers. I want you to know it results in lots of sales."

Richard Shortell
CAMFIELD SUPPLY COMPANY
KINGSTON, NEW YORK

Consistent advertising month in and month out—the biggest ad-budget in the volt-ammeter field—is just one of the ways Amprobe puts more money in your pocket. Only Amprobe backs you up with a five point JOBBER PROFIT PROGRAM: 1) 100% Jobber Protection 2) Sales Training 3) Saturation Advertising 4) Sales Incentives 5) Brand Demand.

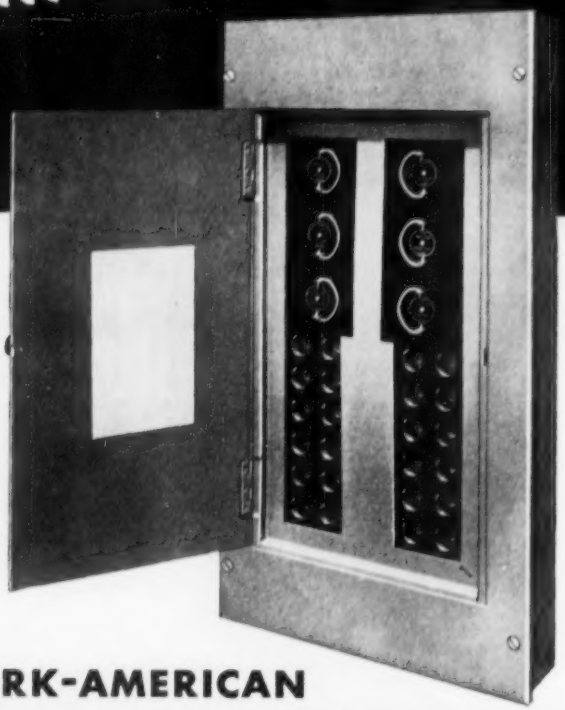
You can count on

AMPROBE

for advertising support

AMPROBE is a division of Pyramid Instrument Corporation, 630 Merrick Rd., Lynbrook, N. Y., manufacturer of REMCON low-voltage wiring devices.

NEW! for homes with electric heating



CLARK-AMERICAN SIX PULL-OUT COMBINATION SERVICE ENTRANCE EQUIPMENT

Now you can provide all home Service Entrance facilities including heating, lighting, appliances, air-conditioning etc.—in one compact cabinet. This new unit for 120-240 volt service contains six branch pull-outs in parallel—two 60 amp. and two 30 amp. for major appliances, and two 60 amp. for controlling 24 plug fuse branches for electric heating and/or lighting. For complete information and specifications write for Bulletin 220-3.

CLARK-AMERICAN "Product Selector" —32 page book containing complete catalog—plus application and installation data—yours for the asking.

ADEQUATE WIRING SERVES AND SAVES

American ELECTRIC SWITCH DIVISION

The CLARK CONTROLLER Company

Engineered Electrical Control • 1146 East 152nd Street • Cleveland 10, Ohio

was appointed general sales manager of the Sylvania lighting div., with headquarters in Salem, Mass.

Harold T. M. Millikin is assistant general sales manager of **Westclox div., General Time Corp.** The appointment is in addition to his present duty as advertising manager.

B. R. Stratton is manager of the Atlanta, Ga. district sales office for **Cutler-Hammer, Inc.,** Milwaukee, Wis. He was formerly branch manager at Tulsa, Okla.

O. B. Wilson has been elected vice president of the **Brown Instruments div., Minneapolis-Honeywell Regulator Co.,** located in Philadelphia, Pa. He will also continue in his current post as general sales manager for the division.

Edwin George May has joined **Trav-Ler Radio Corp.,** Chicago, Ill, as general sales manager in charge of distributor sales.

Harold A. Ketchum, financial vice president, **Federal Pacific Electric Co.,** Newark, N. J., has been elected president of the Controllership Foundation, research arm of the Controllers Institute of America.

Robert F. Vogler has been named general sales manager and **William A. Carey** assistant sales manager for **Stewart Industries, Inc.,** Indianapolis, Ind. manufacturer of ventilating equipment.

Stanley Silber is director of sales for the **Lewyt Air Conditioner Corp.,** Long Island City, N. Y. In his new post, Mr. Silber will direct the franchising of distributors in key markets.

Harry G. Burd, former president of **Superior Wire and Cable Co.** has been appointed special consultant to the **Sequoia Process Corp.,** Redwood City, Calif. Mr. Burd, whose experience in cable manufacturing dates back to 1910, will assist the company in all phases of its new telephone cable operations.

L. F. Turner has been named assistant to the general sales manager, **Wright Saw-Electric Sprayit div., Thomas Industries, Inc.,** Louisville, Ky.

Harold P. Bull has been appointed vice president-distribution of **Norge div., Borg-Warner Corp.,** Chicago, Ill. He will be in charge of national home appliance marketing. He has directed distributor sales for the company for the past two years.

Walter H. Bieringer, vice president of **Plymouth Rubber Co., Inc.,** Canton, Mass., has been appointed by the Department of State as a United States delegate to the Intergovernmental Committee for European Migration. Mr. Bieringer represented the U. S. in Rome Sept. 29 at a celebration commemorating the migration of a half-million Europeans under the present United Nations program, and on Oct. 1 he attended the ICEM conference in Geneva.

Robert Sheridan is manager-sales development in the commercial and residential air conditioning div. of Mitchell Mfg. Co., Chicago, Ill.

Henry F. Callahan has been appointed general manager of the lighting div., **Sylvania Electric Products, Inc.** He has been general manufacturing manager of the division since 1947.

William F. Koubek becomes president and a director of **Acme Electric Corp., Ltd.** of Toronto, Ont., Can., an affiliate of the Cuba, N. Y. firm.

James C. McGill is manager of distributor sales for the **McGill Manufacturing Co., Inc.,** electrical division, Valparaiso, Ind. He is a grandson of the company's founder.

Charles W. Krinard was appointed recently as sales and office manager for **Peerless Electric Co.,** San Francisco, Calif. At the same time, **Ray C. Dameral** was made chief of design, production and shop personnel.

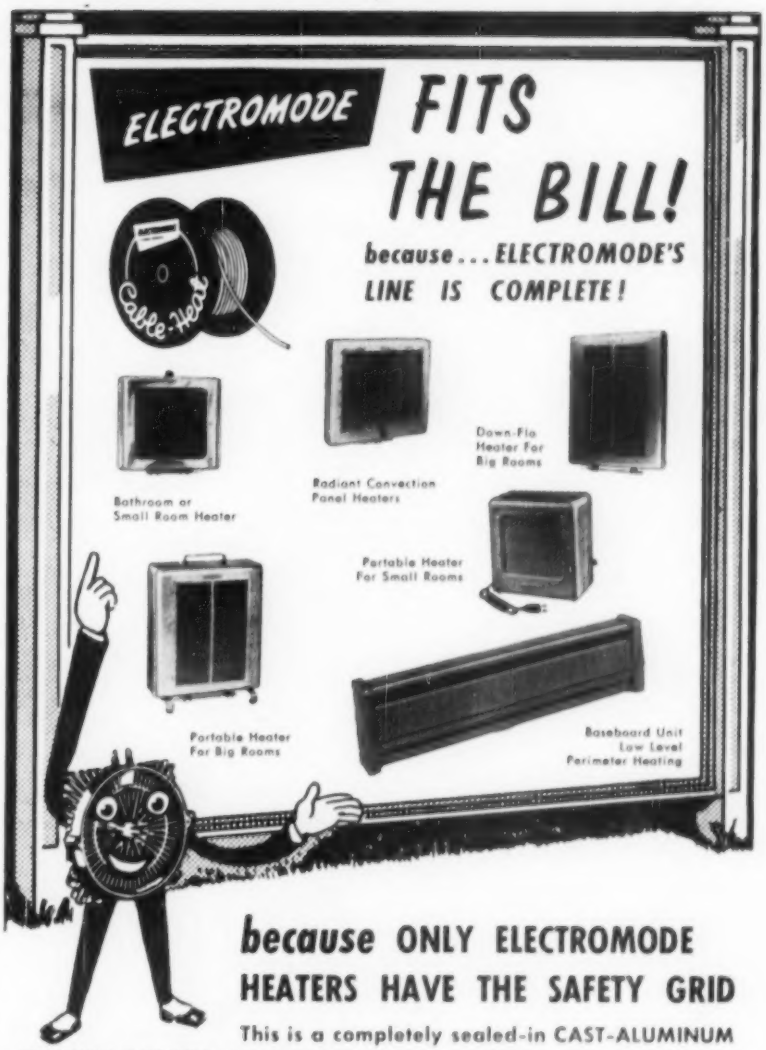
Sherwood DeWein, plant manager of Pierce Renewable Fuses, Inc., Leicester, N. Y., has been elected a vice president. He will assist in formulation of sales policy.

James M. Kennedy, chairman of Revere Copper & Brass, Inc., has been named recipient of the 1956 Distinguished Service Award of the housewares, electronics and appliance industries by the Joint Defense Appeal.

OBITUARIES

Henry C. Johnson

Henry C. Johnson, 68, vice president and treasurer of the H. C. Johnson Agencies, Inc., died Aug. 29. Mr. Johnson was prominent in the electrical supply industry in Buffalo for many years before establishing himself as a manufacturer's representative. His firm subsequently opened branches in Buffalo, Syracuse, Binghamton and Schenectady.



because ONLY ELECTROMODE HEATERS HAVE THE SAFETY GRID

This is a completely sealed-in CAST-ALUMINUM HEATING ELEMENT. Absolutely no glowing elements or exposed open coils. Tops in safety, efficiency and economy. The Electromode heating element is guaranteed for five years.

ELECTROMODE
Division Of
COMMERCIAL CONTROLS CORPORATION

because . . . YOUR PROFIT IS GREATER

Full profit margin is yours when you sell Electromode heaters. Every sale satisfies both you and the customer because Electromode heaters are quality-built to give long lasting, efficient service. No call backs, no servicing, no adjustments. Boost your profit . . . speed your turnover with the complete Electromode line.

MAIL COUPON TODAY

ELECTROMODE Division, Dept. EWH-106
Commercial Controls Corporation
45 Crouch St., Rochester 3, N. Y.

Please send new illustrated brochure describing the complete line of Electromode Electric Heaters.

Name .....

Address .....

City ..... State .....

MAKE
Wagner
YOUR SUPPLY SOURCE . . .

and give your customers outstanding service in
EMT FITTINGS

1 A complete line of E M T fittings is your assurance of correct types so that you can quickly meet all requests.

2 All Wagner fittings are packaged in attractive containers. Each carton is labeled for complete and quick identification.

3 Our factory is equipped throughout with the most modern production facilities, assuring you of low cost, high quality fittings.

4 14 regional warehouse stocks are maintained for your convenience assuring prompt deliveries, to any point.

● 21 Wagner representatives are located in major centers. The one closest to you will gladly cooperate with you on any problem concerning the application of fittings. These men make calls on your customers to sell Wagner quality and to sell your service.

WAGNER MALLEABLE PRODUCTS CO.
General Sales Office: 222 W. Adams St., Chicago 6, Ill.
Foundry and Plant: Decatur 60, Ill.

SALES REPRESENTATIVES

Chase & Sons, Inc., N. Quincy, Mass., has announced appointment of The Jack Payne Co., 431 Colyton St., Los Angeles, Calif., as sales representatives for its line of electrical insulating tapes. The company will cover southern California; Clark County, Nev.; El Paso, Tex.; plus all of Arizona and New Mexico. At the same time, Chase appointed Berry-Rochi, Inc., 1270 Sixth Ave., New York, N. Y., as representatives in the east.

McPhilben Lighting Co., Brooklyn, N. Y., announces three new sales representatives. Warren McFarlane, 3812 N. W. 25th St., Oklahoma City, Okla., has joined Traweek-Healy & Assoc. and is representing the lighting manufacturer in Oklahoma and northern Texas. Robert Cardwell, 1107 Mulberry St., Upland Chester, Pa., has joined J. B. Derr Assoc. and will represent the company in Delaware. James A. Farmer, 5820 S. W. 13th St., Miami, Fla., is now associated with Ken H. Hill and covers southern Florida.

Plymouth Rubber Co., Canton, Mass., has appointed Arbeiter-Steele Co., 3721 Washington Ave., St. Louis, Mo., as representatives for Plymouth tapes. They will call on electrical and hardware wholesalers in southern Illinois, western Kentucky and the eastern half of Missouri.

Markel Electric Products, Inc., and **LaSalle Products, Inc.,** both of Buffalo, N. Y., have named The Martin Co., 200 Architects Bldg., Philadelphia, Pa., as sales representatives, covering eastern Pennsylvania, southern New Jersey, Delaware, Maryland, Washington, D. C., and Virginia.

Advance Transformer Co., Chicago, Ill., announces the appointment of William M. Walsh as sales representative for the midwestern region. He will make his headquarters at the company's offices, 2950 N. Western Ave. Mr. Walsh, a member of IES, was formerly associated with Curtis Lighting, Inc., and Efengee Electrical Supply Co., both of Chicago.

Leece-Neville Co., Cleveland, O., has named J. M. Young as its southeast representative covering Florida, North Carolina, South Carolina, Georgia, Tennessee, Alabama and Mississippi.

Sentinel Radio Co., Evanston, Ill., has appointed Jack Heimann, 1711 Hawthorne Ave., Minneapolis, Minn., as sales representative throughout North Dakota, South Dakota, Minnesota, Nebraska and Iowa.

WASHINGTON, D. C.—A top level roster of nationally known persons has been lined up for the conference sessions to be held in connection with the forthcoming Electrical Trade Conference and Exposition, sponsored by the Electric Institute of Washington, according to William G. Hills, managing director. The trade show will be held Feb. 12-14, 1957, at the Shoreham Hotel. Mr. Hills revealed that the exposition will also launch National Electrical Week in the nation's capital and that Merrill E. Skinner, chairman of NEW has been invited to preside at the opening day luncheon.

Others who will participate in the sessions include: Oliver F. Burnett, president, NECA; Harry C. MacNary, Fishbach & Moore, Inc., New York; Merwin Brandon, vice president, Underwriters' Laboratories and chairman, electrical section, National Fire Protection Assn.; Carl Bremicker, chairman, National Adequate Wiring Bureau; Edwin Vennard, vice president and managing director, EEI; Leon Chatelain, Jr., president, AIA; and J. H. McCulloch, chairman, progress committee, IES, Boulder, Colo.

MINNEAPOLIS—Carl T. Bremicker was re-elected chairman of the North Central Electrical League at the annual meeting of the board of directors. He is also chairman of the National Adequate Wiring Bureau. J. L. McEachin was re-elected first vice chairman and Ralph J. Moudry, second vice chairman. In his report to the board, Mr. Bremicker gave the directors a prevue of the NAWB "Housepower" Rating Sheets. A. H. Kessler, executive secretary, told the board that league staff members had traveled 12,358-mi during the first six months of this year to promote industry programs.

NEW ORLEANS — The Electrical Assn. has scheduled its annual Golf Tournament and Outing for Oct. 23. Chairman Arthur Wachter and vice chairman Ned Breitenmoser report plans and arrangements proceeding towards a highly successful event. At the last meeting of the executive committee, two new members and three membership transfers were approved. A. W. McLaughlin, General Electric Supply Co., is one of the new members through transfer.

CHICAGO — The Electric Assn.'s EME div. was sponsor of golf tournament on Sept. 20, at the Cog Hill Golf and Country Club. EME members competed for prizes donated by suppliers, who vied for special awards.

for devices to hang conduit and pipe the brand that sells is PAINE

Pipe and Romex Straps

Paine Pipe and Romex Straps have no sharp corners or edges to cut users' hands. Made of galvanized steel, beaded for extra strength. Twenty sizes accommodate Romex, BX, EMT and pipe diameters from 1/8" to 4".

Pipe and Conduit Clamps

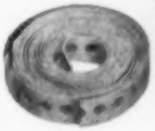
Paine Conduit and Pipe Clamps spread easily, stay spread for pipe insertion, and won't crack at point of flexing. Pipes held rigidly, vibration-free. Use with 1/4" Paine anchors or toggle bolts for quick, sure fastening to walls or ceilings.

Hanger Rings and Bolts

Paine Hanger Rings install fast and are economical to use. They make a neat permanent job of hanging pipe, conduit and armored cable. Both ring and stove bolt are zinc plated and rust-free. Bolts are precision threaded and will never bind.

"Snugfit" Pipe Hooks

Paine "Snugfit" Pipe Hooks have nail-sharp drive points, made with an offset bend for easy hammering. They are formed for a tight, pressure fit around pipes to eliminate vibration. Seven sizes support pipe sizes from 3/8" to 2" — come in four different lengths.



Perforated Hanger Iron

Paine Perforated Hanger Iron has milled, burr-free edges that are kind to users' hands and is electro-galvanized — clean to work with and rust-proof. Two widths, 3/4" and 7/8" provide a handy, simple way to hang pipe or conduit. Sold bulk and packaged.

"560" Combination Hanger

Paine "560" Hangers are ideal where distances from pipe to mounting surfaces vary. They combine a pipe ring and flattened head lag screw with a six-inch length of perforated hanger iron and two sets of stove bolts, ready for assembly. For pipe sizes from 1/2" to 4".

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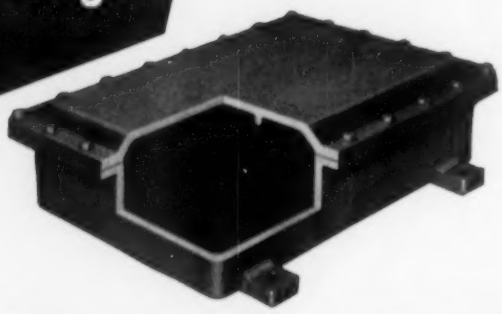

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NEW LITERATURE

Small Motors — Characteristics and performance ranges of all fractional hp motor types are charted in detail in a new binder sized Fractional HP Motor Selector Chart. Speed-torque curves for basic motor types are illustrated as well as other valuable motor data. For a free copy, write Howard Industries, Inc., 1760 State St., Racine, Wis.

Wiring Devices — A new 32-page catalogue covers the company's expanded line of engineered electrical wiring devices. The quick reference catalogue has products grouped by application and indexed by product number, with dimensional drawings for every major item. The text aims at helping the reader evaluate the device in terms of his own needs. Included are sections on fluorescent lampholders, etc., incandescent sockets, etc., as well as devices for sign and display industries. Write The Kulka Electric Mfg. Co., Mt. Vernon, N. Y.

Packaging—A new booklet, developed from reports received from industrial, department store, distributor and mail order firms, describes and illustrates "The Kord-Mar Packaging Program." Use applications and economies of the Kord-Mar Cutter and Crimper, which convert used corrugated into ideal wrapping and packing materials, are detailed. The booklet also shows a suggested floor plan and packing table arrangement for use with these machines. Free from The Kord-Mar Co., Inc., Wilmette, Ill.

Storage Racks—Plastic bound catalog of all storage racks produced by the company is standard size for convenient filing, so designed that revised future literature can be inserted. Published by American Metal Products Co., Detroit, Mich.

Baseboard—New 8-page circular entitled "2200 3-in-1 Plugmold Electrified Baseboard" shows wide application of product for wiring or rewiring in residential, commercial and industrial buildings. Full list of fittings and sketches of installation techniques are included. For a free copy of Form 590, write The Wiremold Co., Hartford 10, Conn.

Lighting Layouts—"Technical Data—Folio 56-6" provides technical information helpful for lighting layouts. Included are sections on illumination, calculation methods, guides to levels of illumination, lamp data, light distribution classifications and maximum spacing ratios, room indexes, and typ-

ical coefficients of utilization—all in 8 pages. Available from McPhilben Lighting Co., 1329 Willoughby Ave., Brooklyn 37, N. Y.

Metering System—New bulletin describes features, applications, future expansion provisions of remote metering system with plug in construction. This system is said to permit complete process monitoring from any remote point. It can be installed by any plant electrician and building block design provides basis for future expansion into centralized control. Available from Sparton Control Systems div., The Sparks-Withington Co., Jackson, Mich.

Resistors—Comprehensive data on construction, design, applications, ranges, ratings, tolerance, temperature coefficient, identification and dimensions are included in this bulletin, published by International Resistance Co., 401 North Broad St., Philadelphia, Pa.

Wiring Devices—Over 1,400 electrical wiring devices, lamps and specialty products are listed in a new 72-page catalog. Fully illustrated, it is designed for selling as well as reference. All products are cross-indexed. Available on request from Eagle Electric Mfg. Co., Inc., Long Island City 1, N. Y.

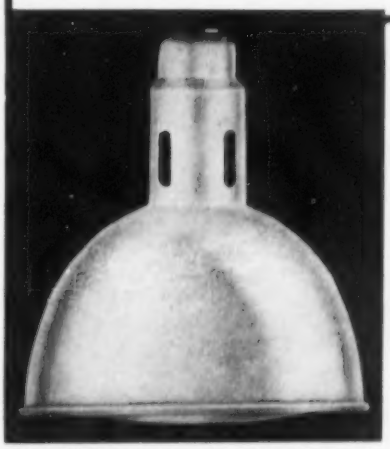
Wall-to-Wall Lighting—New 20-page booklet describes applications of Sylvan-Aire lighting system which features functional treatment of sight, sound and styling. Separate sections are devoted to two versatile suspension systems, one completely flexible, the other for standardized arrangement of ceiling fixtures. Booklet provides installation instructions, describes special design situations and explains how the lighting system may be installed along with other service systems. Maintenance, design and technical data are also included. Available from Sylvania Electric Products, Inc., Wheeling, W. Va.

Lighting Fixtures—Catalogue contains full line of adjustable lighting fixtures—incandescent and fluorescent—for specialized on-the-job and work area illumination. Includes new list price sheet. Available from The O. C. White Co., Worcester 8, Mass.

School Lighting — "The ABC's of School Lighting" illustrates use of Cel-U-Liner cold cathode lamps and fixtures, a new line for general purpose lighting. Includes three basic new fixtures and five new lamp sizes to accomplish line lighting with spot hanging. Installation data is also included. Address Public Information dept., Celine, Inc., Batavia, Ill.

THE SECRET IS IN THE NECK

ABOLITE REFLECTORS



ALL-WHITE finish (outside and inside) is available on all ABOLITE fixtures. This "whiter-than-white" titanium porcelain surface gives life-time service and enhances modern architecture and decor.

SLOTTED-NECK construction is an exclusive ABOLITE development! Lamp heat causes convection currents which continuously and automatically circulate through these neck openings. Dust and dirt is carried away from the fixture, lamp operating temperature is reduced, and more up-light is obtained. These features result in greater illumination over a longer period of time, longer lamp life, and consequently, less maintenance time required for lamp replacement and cleaning fixtures.

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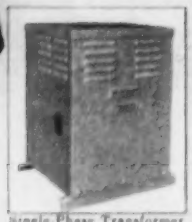

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Insulating Transformer for three-phase operation, 480 volt primary, 120/208 volt secondary, 60 cycles. Sizes from 6 to 2000 KVA

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Radiant Heating—"Radiant Cable Manual" gives specifications, information and diagrams. Parts include information to sell radiant heating; installation procedures; determination of heating load, cable size and spacing. Copies are available from Ceilheat, Inc., 5212 Homberg Drive, Knoxville, Tenn.

Weather Controls—"Modern Control of Building Temperatures from Outdoors" is the title of a four-page illustrated bulletin. The catalog describes in detail, and with diagrams, the manufacturer's complete line of outdoor-type automatic heat controls. Three classes of controls are available. Copies of the bulletin may be had from Automatic Devices Co., Inc., 714 Hillgrove Ave., Western Springs, Ill.

Conveyors—Two new bulletins on portable inclined belt conveyors are now available. In addition to a general description of two models, are the units' application to loading, unloading, movement of materials into balcony and basement storage and stacking. The back page gives complete specification data on the unit. Copies may be obtanied from The Rapids-Standard Co., Inc., Grand Rapids, Mich.

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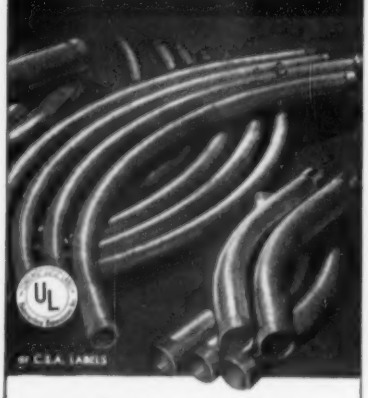

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PIPE NIPPLES
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RUNNING THREAD PIPE
WALL PLATES • GOOSENECKS

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1455 Spring Garden Ave. PITTSBURGH 12, PA.

Pipe Benders—"How to bend rigid or thinwall conduit easily and accurately" is a new folder which illustrates the complete line of "Chicago" pipe benders. Each model is fully described showing capacities, performance data and bending circles for rigid or thinwall conduit, along with complete operating instructions. The folder includes prices of units, exploded views of features with parts numbered for identification purposes. For a free copy of Bulletin No. 556 write to Gustave Lidseen Inc., Hayesville, N. C.

Exhaust Fan—A wall exhaust fan model is described in a four-page folder. The new model, designed to operate vertically with an automatic wall shutter, is available in 24, 26, 30 and 42 inch models. For additional information, write Consolidated General Products, Inc., P.O. Box 7425, Houston 8, Tex.

BOOK REVIEWS

Automation, Friend or Foe?

R. H. MacMillan
Cambridge University Press
New York, N. Y.

Automation, the author states, can perhaps be called correctly the "second industrial revolution;" however, he im-

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PIPE STRAPS
For Heavier Loads!

Two-hole pipe straps of zinc plated steel. Double ribbed and embossed for lock washer action to support heavier pipes, cables, conduits, etc. Available in sizes to fit pipe and conduit from ¼-inch to 6-inch. Also available in Everdur, copper or aluminum.

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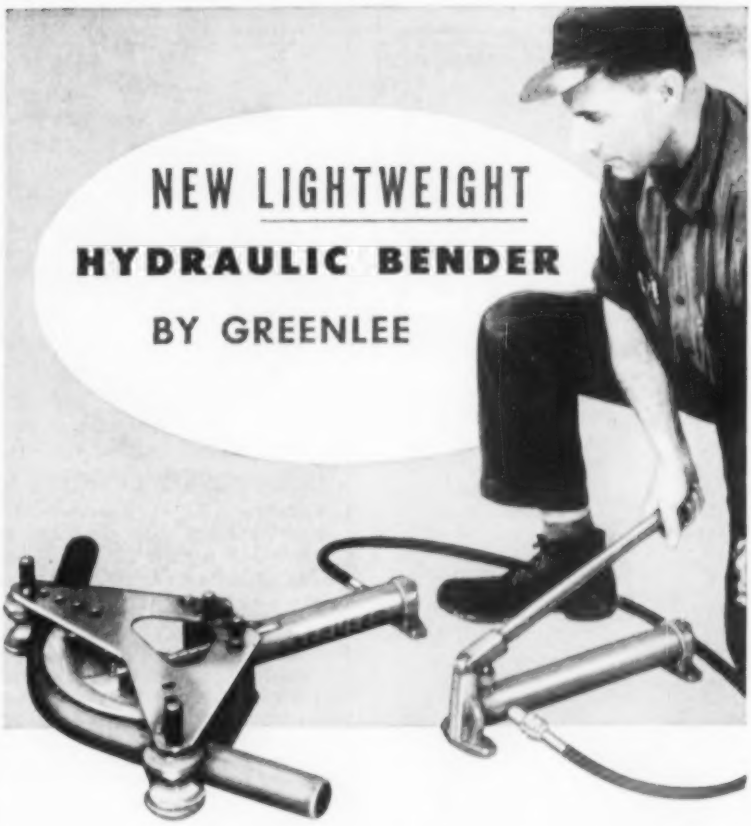
MINERALLAC



opens up even bigger sales opportunities for you on the famous Greenlee line

Here's the kind of real portability your customers are looking for in a hydraulic bender to form 1/2" to 2" pipe and conduit. One man can easily carry and operate the new advanced-type GREENLEE No. 880—and pipe supports are designed to serve also as rollers for easy moving of the unit. Light, but strong, aluminum alloy is used in many parts for big savings in weight with no sacrifice in strength. There's power to spare here and *a complete 90° bend can be made with one ram stroke!* With attachments this versatile bender can also be used to bend thin-wall conduit, tubing, bus-bars.

This new GREENLEE No. 880 Bender *with separate hydraulic pump and ram* is easily hand-operated or can be teamed with a GREENLEE Power Pump for fast production jobs. It's a widely needed new tool that you can do big business with . . . and it's being extensively advertised by GREENLEE right now. Tie-in your sales efforts for extra profit! Write today for Bulletin E-217 and prices.

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The fast-selling GREENLEE line includes Hydraulic Pipe and Conduit Benders • Tubing Benders Knockout Punches and Cutters • Hydraulic Knockout Punch Drivers • Cable Pullers Radio Chassis Punches • Boring Tools • Chisels • Gouges • and many others.

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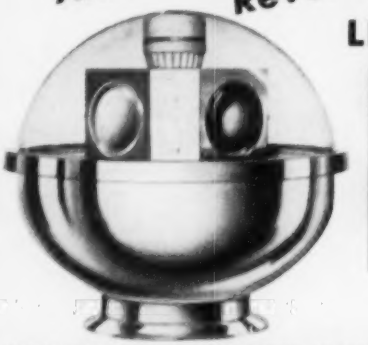

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Fascinating just to watch it! Can increase trade 25% or more the day it's installed. Covers 360° like an airplane beacon with a different colored flash every 7½ seconds. Does not conflict with traffic signals. Made like a fine watch to run trouble free indefinitely from 40° below zero to hottest days. Long life 60-watt bulb burns over 2500 hours . . . silent!

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plies, it is incorrectly thought of as a development of the 20th century. Actually, the first inklings of automation were apparent during the 19th century, just when the first industrial revolution was getting a good foothold. This is an entertaining history and overall view of automation for the general reader or businessman.
100 pages

Practical Distribution Cost Analysis

Donald R. Longman and Michael Schiff
Richard D. Irwin, Inc.
Homewood, Ill.

The authors show how to make marketing evaluations in terms of costs rather than of sales. Pointing out that sales management naturally tends to give priority to making sales, they contend that both sales and sales costs must be considered to reach the highest profit. With distribution cost analysis, management can make better decisions on market-policies and methods. Not only such big problems as marketing organization, budgetary control and operating efficiency lend themselves to distribution cost analysis, say the authors, but also other marketing problems like pricing and discounts, diversification of line, warehouse location, frequency of sales calls, handling of small orders, etc.
450 pages

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Wire sizes Nos. 14 to 1,000,000 CM. One-piece construction—easily installed. Body is well proportioned to withstand excessive use, with ample thread area. Makes tenacious grip on stranded conductors, forcing contact with each wire in strand, thereby insuring utmost in conductivity—bottom of tongue surface is ground. Not susceptible to release under vibration.

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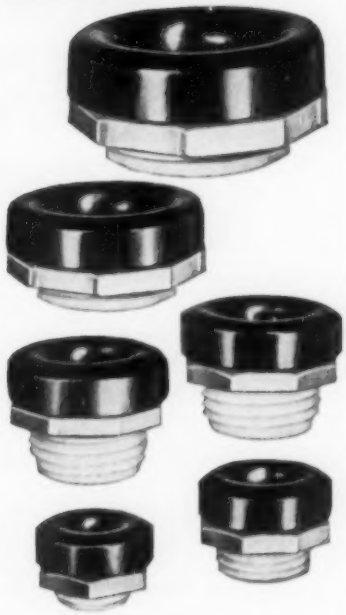

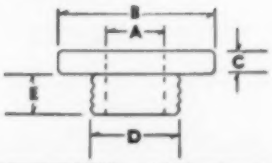

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PB-1	1/4"	25/32"	1/4"	1/4"	5/16"
PB-2	3/8"	29/32"	1/4"	3/8"	3/8"
PB-3	7/16"	1 7/64"	11/32"	1/2"	1/2"
PB-4	1/2"	1 7/64"	11/32"	1/2"	1/2"
PB-5	3/4"	1 11/32"	3/8"	3/4"	5/16"
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Tomic Sales & Engineering Co., Detroit, Mich.

Introduced recently, "Adapta-Studs" are said to make possible a new and simplified method of installing outlet boxes for lighting fixtures in suspended ceilings and also insure safe mounting for even the heaviest fixtures. Internal thread of "Adapta-Stud" receives lower end of rod or bolt attached to concrete ceiling, bar joist or ceiling channel. External threads are 1/2-in for the locknut to hold outlet box in place and 3/8-in for the fixture stem. They may also be used without outlet box as in continuous row multi-stem fixtures.

Cable Trough Elbow

T. J. Cope, Inc., Collegeville, Pa.

An adjustable flat elbow has been added to manufacturer's line of cable trough used to support power and control cables. This adjustable elbow will make any angle between zero and 90 deg and is designed for use where rerouting of cables requires constant changes in direction. Solid metal elbow is available in standard trough widths.

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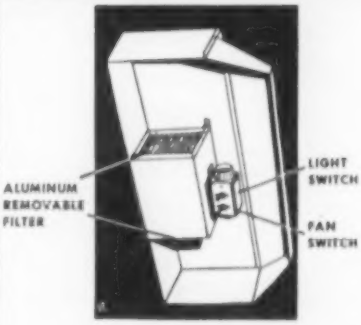

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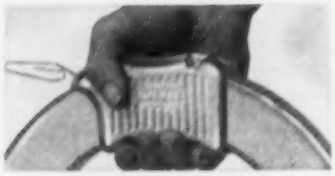

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Here's one of the hottest items to hit the jobber's shelf in '56—TAPE-MATE—the revolutionary fish tape winder. Winds fish tape with an easy sliding action . . . under proper tension—push to wind, pull to pay out—that's all there's to it. Protects hands and saves tape. Fits all round 12" fish tape reels containing 1/8" flat fish tape. TAPE-MATE is as compact and fool-proof as the reel it attaches to.

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John Oster Mfg. Co., Milwaukee, Wis.—A new full color 16-page comic book that tells the history of tools is available as a consumer give-away or promotional piece to interest potential purchasers. Also illustrates Cummins tool line made by the company.

Hotpoint Co., Chicago, Ill.—Flip chart acts as two-way sales aid in pointing out key selling features of all air conditioner models — it's distributor's presentation to dealers and the dealer's presentation to prospects. The 18-page flip chart is called, "An Air Conditioner for Every Cooling Need."

Edison Electric Institute, New York, N. Y.—Set of 21 street lighting slides and an accompanying script are available for showing to civic groups, municipal groups and others interested in street lighting. Presentation covers the measurement and distribution of light, recommended practices, typical layouts for various traffic classifications, lighting at intersections and many other facets of street lighting. Complete set of 21 2x2-in slides (12 in color and 9 black and white) along with the script may be ordered on a trial basis.

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SELLING OPPORTUNITIES

(Continued on opposite page)

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SAN FRANCISCO: 68 Post St. (4)

POSITION VACANT

One of the oldest and best independent Wiring Supply and Appliance distributors operating in 4 smog-free cities in Southern California needs experienced Salesmen and Countermen. Send complete information with photo to Electric Supplies Distributing Co., Box 1310, San Diego 12, Calif. Confidential.

SELLING OPPORTUNITIES WANTED

Sales representative with ten years experience calling on Wholesalers and Utilities in the states of Minnesota, North and South Dakota, Iowa and Nebraska would like to get quality Product lines. RA-2947, Electrical Wholesaling.

Executive Salesman Available, 12 yrs. experience sales and sales management. Now selling to electrical wholesalers in Michigan, good industrial contacts. Age 37, married, college. SA-2921, Electrical Wholesaling.

Expanding Agency covering Southeastern states desires additional lines. No lighting fixtures or fittings. RA-2851, Electrical Wholesaling.

Established Sales Representative, excellent following, now selling wiring devices and wire, desires to represent one or two additional manufacturers, calling on distributors and industrial accounts in N.Y. State, excluding Metropolitan N.Y. RA-3023, Electrical Wholesaling.

SPECIAL SERVICE

Shippers in the 11 Western States. If you pay $8,000 or more a year for freight and if you have 5 or more freight claims a month, a qualified expert will audit your freight bills, handle your claims and suggest better methods of routing for a small monthly fee. SS-2885, Electrical Wholesaling.

Free business gift, advertising novelty catalog. Ideal Specialties, Inc. 1133 Broadway, New York, N.Y.

ESTABLISHED REPRESENTATIVE AVAILABLE

Now representing top national company. Well known and respected by all branches of the trade in:
MINNESOTA, WISCONSIN
NORTH & SOUTH DAKOTA
Present line has shown steady growth. Can now profitably promote and sell another line of top quality material to Established Architect, Engineer, Distributor, and Contractor Customers.

RA-3057—Electrical Wholesaling
520 North Michigan Avenue, Chicago, Ill.

WHEN LOOKING FOR
• • • •
● Agents
● Lines
You can locate them faster, easier through this SELLING OPPORTUNITIES section.

CLASSIFIED *SELLING OPPORTUNITIES* ADVERTISING

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—RATES—

UNDISPLAYED

$1.20 per line, minimum 3 lines. To figure advance payment count 5 average words as a line.

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Discount of 10% if full payment is made in advance for 4 consecutive insertions.

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The advertising rate is $11.50 per inch for all advertising appearing on other than a contract basis. Contract rates quoted on request.

An advertising inch is measured ⅞" vertically on a column—3 columns—20 inches to a page.

Send NEW ADS or INQUIRIES to Classified Advertising Div. of ELECTRICAL WHOLESALING, P. O. Box 12, New York 36. November issue closes October 16th.

Factory Representative for Lighting Fixture Mfr. Northern New Jersey Area

Manufacturer of complete line of incandescent and fluorescent lighting fixtures offers an excellent opportunity for man to call on architects, engineers, electrical wholesalers, contractors.

Factory located in territory . . . excellent service and delivery . . . outstanding promotion and advertising.

We have the opportunity for the right man to make tremendous strides.

Replies held in confidence . . . Call or send full details to:

Litecraft Manufacturing Corp.
8 East 36th Street
New York 16, New York

SALES EXECUTIVE
WIRING DEVICES

CHALLENGING OPPORTUNITY FOR A MERCHANDISING EXECUTIVE

with a thorough knowledge of marketing techniques and a proven record of results obtained by working through agents, wholesale distributors, and electrical contractors.

TO STEP INTO A NEW POSITION OF REAL IMPORTANCE WITH AN ESTABLISHED MANUFACTURER OF WIRING DEVICES AS THE KEYSTONE OF A MAJOR EXPANSION PROGRAM

The successful candidate for this position: will himself have had successful selling experience, will be able to motivate others to sell effectively, will have a flair for planning and preparing promotional materials, and will preferably have had the major portion of his experience in selling or promoting items that are carried by distributors of electrical supplies. (He may well be a man who is successfully performing some phases of a similar job with a larger company but is restless under the restraints imposed on him.)

At least half of time will be spent in the field (Eastern U. S.).

Remuneration: *salary* plus *overide* plus *profit* sharing.

Please write, in complete confidence, to President:

Slater Electric & Mfg. Co., Inc.
45 SEA CLIFF AVE., GLEN COVE, L. I., NEW YORK

ROBOT OPERATORS
OPEN - CLOSE - LOCK DOORS, GATES
...*Electronically*

COMMERCIAL, INDUSTRIAL RESIDENTIAL & SPECIAL
Write for Catalog
ROBOT APPLIANCES, INC.
7841 ORCHARD - DEARBORN, MICHIGAN

FOR SALE
ELECTRICAL SUPPLIES WHOLESALE

with extensive Industrial and Commercial clientele, handling many profitable and exclusive lines, located in heart of Canada's Prairie Provinces. Annual volume one million dollars with good profit picture. A well managed enterprise, available only on account of ill-health of principals. Approximate value $275,000.00. For full particulars, apply

BO 3014 Electrical Wholesaling
520 N. Michigan Ave., Chicago 11, Ill.

MFR'S REPRESENTATIVE WANTED

Prominent manufacturer of hack saw blades and hole saws desires additional representation in the electrical wholesale trade. We have two outstanding items to offer with some choice territories open. Reply to:

R.W. 1646 Electrical Wholesaling
330 W. 42nd St., New York 36, N. Y.

WANTED

ELECTRICAL MATERIAL DISTRIBUTING OR MANUFACTURING COMPANY

With tax loss carry forwards of $500,000 or more. Replies held confidential.

BO-2903 ELECTRICAL WHOLESALING
Class. Adv. Div., P. O. Box 12, New York 36, N. Y.

MANUFACTURERS!

You will receive better results from your "Representative Wanted advertising" if you will state in your copy what territory or territories are available.

NOW READ THIS!

A MODERATE SIZED COMPANY LISTED AMERICAN EXCHANGE WITH:

Factory metropolitan area engaged in production of electrical item.
National sales organization with warehouses calling on Electrical Wholesalers.
Top level management and financial organization.

SEEKS TO ENLARGE AND EXPAND PRESENT COMPANY BY MEANS OF:

Acquiring by merger or purchase other manufacturing company with 1 to 3 million dollars sales in electrical items through wholesalers.

Why remain an independent manufacturer when you can continue to operate your plant as a division of an integrated, diversified and listed company.

Principals only. All replies strictly confidential.

BO 3052 — ELECTRICAL WHOLESALING
Classified Adv. Div., P. O. Box 12, New York 36, N. Y.

When Your Plans Call For

FITTINGS & SWITCH BOXES

Specify

Arrolet CORPORATION

"Like money in the bank"—That's what estimators think about Arrolet's dependability when figuring job costs. Arrolet products have all the features you need to help keep installation time and costs under tight control.

Here's a good example:

New!

ARROLET

Bevel Corner

SWITCH BOX

3" x 2" x 2¼"

cat. no. 160-NGBR

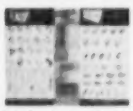
Non-Gangable

Outstanding features of this box are the self-gauging notches for quick, accurate alignment with ½" and ⅝" walls. Only 2 nails needed to hold it securely in place.

Has 2 cable K.O.'s in each end and one ½" K.O. in bottom. 2 CRS non-metallic cable clamps. Projection welding gives BR bracket maximum strength.

Complete details about various mounting devices for the 160-NG series given in our New Product Sheet No. 2c.

For boxes, fittings and accessories that do the job best, make sure to specify 'ARROLET' in your next order.



FREE

WALL CHART — Box guide for maximum number of conductors. Quickly identifies boxes & covers.

Ask for Latest Catalog, Too. Write for Both, Today!

ARROLET CORPORATION

MONTGOMERY, PENNA.

Sales Representatives & *Warehouse Stocks

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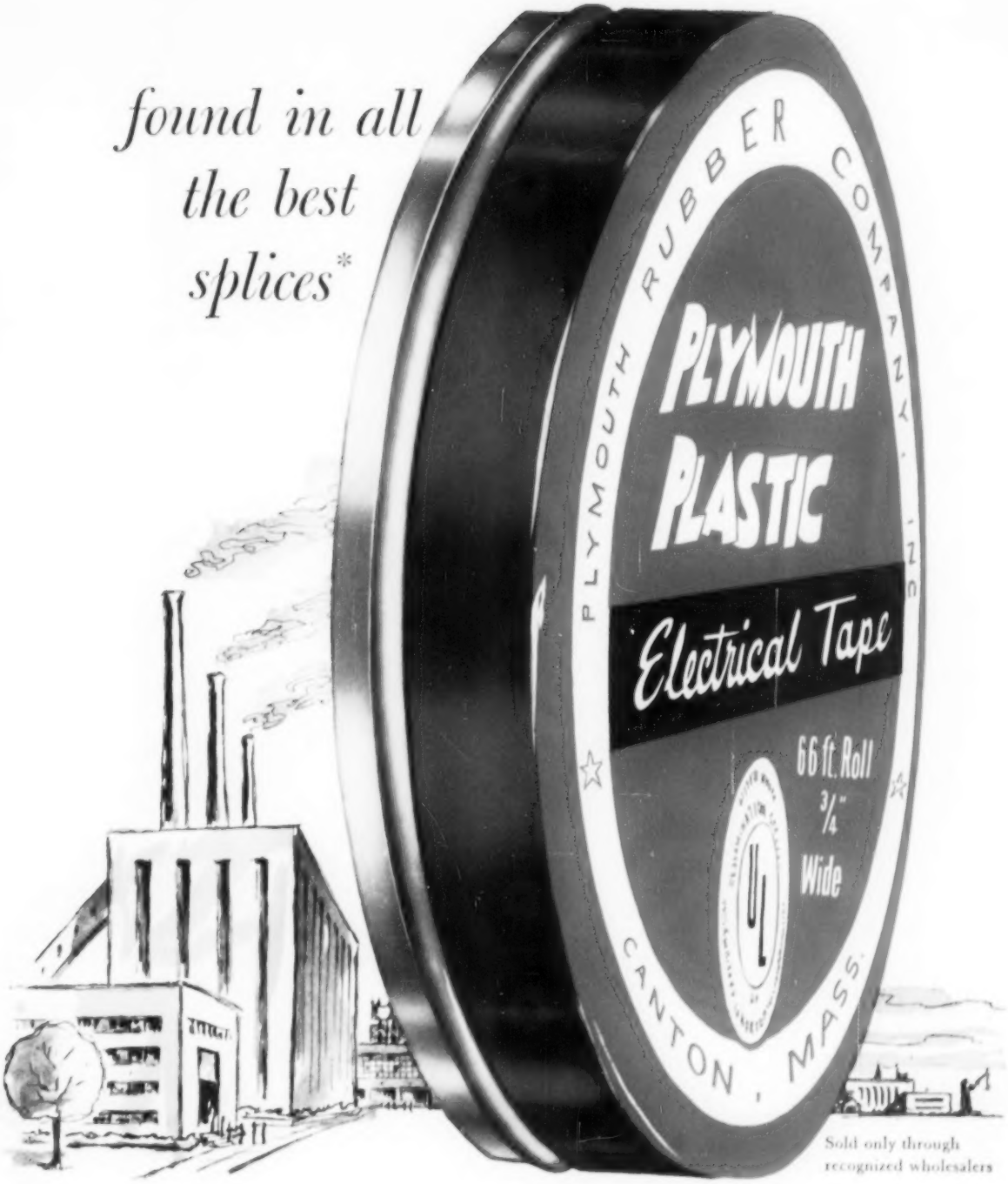
*found in all the best splices**



Sold only through recognized wholesalers

*The world's finest plastic electrical tape. By the makers of SLIPKNOT—most widely used friction tape in the world.

Plymouth RUBBER COMPANY, INC.

SINCE 1896

CANTON, MASSACHUSETTS

60th ANNIVERSARY

© PLYMOUTH RUBBER CO., INC., 1956

Here is an idea that can increase your Fustat sales to plant electrical men

Alongside is a briefed up message to Plant Electrical men.

It calls attention to the fact that on 125 volt circuits, Fustats as well as Fusetron dual-element fuses can be used to give protection to solenoids, motors and other devices.

An added advantage of Fustat protection is that once the adapter is installed, the size Fustat that can be inserted is limited.

This means that the electrical operating man can control within very small limits the size fuse that any one can install.

If, on your calls, you tell Plant Electrical men of Mr. Babcock's experience in protecting solenoids, you may be able to pick up some additional and profitable BUSS Fustat business.

Bussmann Mfg. Co., St. Louis 7, Mo.
Division McGraw Electric Company

"We had as many as 24 Solenoid coils a month burn up before we installed BUSS FUSTATS" . . . . . .

"Now our burned up coil losses are negligible."

Reports **MR. C. R. BABCOCK**
CHIEF ELECTRICIAN • DEWEY PORTLAND CEMENT CO. • DAVENPORT, IOWA

"The burning up of solenoid coils that activate the plungers that dump our weighing scales was a real problem. We lost as many as 4 coils on one 8 hr. shift.

"Trouble developes on days when the gypsum for our cement picks up moisture and sticks to the scales. The counter balance can't reset the scale and the plunger moves up and down energizing and de-energizing the few turns of large copper wire in the thrust coil. This causes it to heat quickly and burn up.

"The thrust coil is on a 125 volt DC power supply so we installed a 3.2 BUSS Fustat in a series with the coil. (BUSS Fustats are FUSETRON dual-element fuses with a type S base for use on circuits up to 125 volts).

"Now, when there is trouble the Fustat opens before a coil is damaged. The scale is cleaned and we are back in operation.

"We figure BUSS Fustats save us money in two ways—by practically eliminating the cost of replacing solenoid coils and by greatly reducing our down-time losses."

For more information . . . write for bulletin SMPS.

ON CIRCUITS UNDER 600 AMPS, USE A FUSETRON DUAL-ELEMENT FUSE

FUSETRON
BUSS

Fusetron fuses provide maximum protection against damage due to electrical faults and . . . they reduce down-time because they eliminate needless blows.

Write for bulletin FS

FOR LOADS ABOVE 600 AND UP TO 5,000 AMPS USE BUSS HI-CAP FUSES

When coordinated with Fusetron fuses they will not open ahead of the fuse nearest fault.

Write for bulletin HCS

BUSSMANN MFG. CO.
(Div. of McGraw Electric Co.)
University at Jefferson,
St. Louis 7, Mo.

Play Safe! *Install BUSS Fustats, FUSETRON fuses and BUSS Hi-Cap fuses throughout entire Electrical System!*